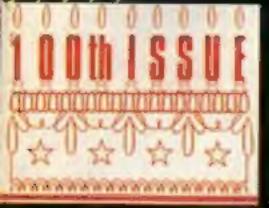
AN ARGUS SPECIALIST PUBLICATION Feb 19-25, 1985 No. 100

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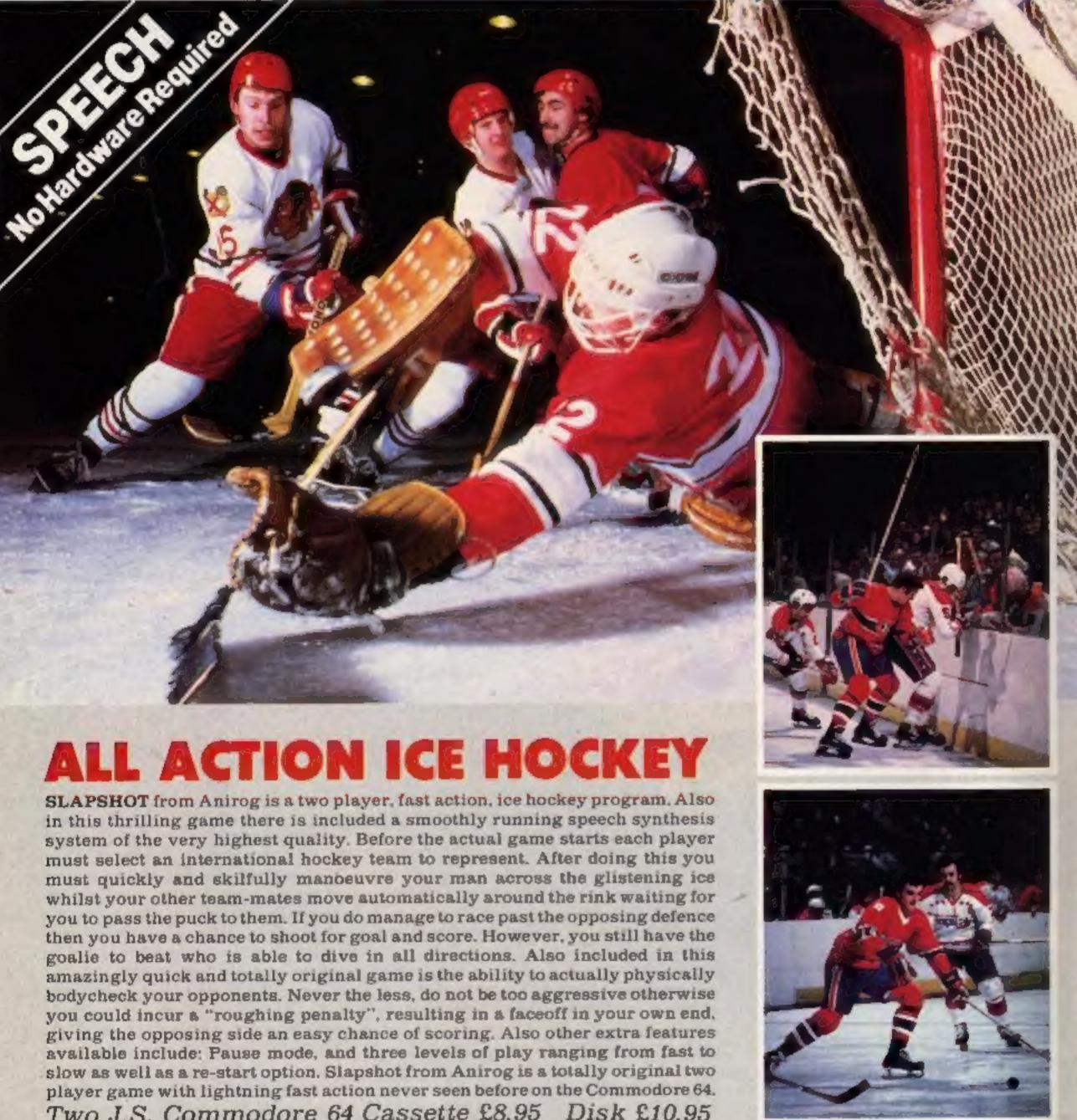
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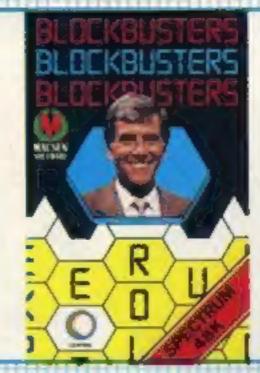
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Editor Dave Carlos Deputy Editor : Liz Graham Editorial Assistant:	Group Editor: Wendy Palmer Production Assistant: Ketty Fowler		Divisional Advertisement Manager Chris Northam Classified Advertising: Beckt Wilson Publishing Director:

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Week Ending February 5, 1985

Compiled by

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PUBLISHER

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- 2 Booty Firebird

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- **Technician Ted** 5 Hewson
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1	Elite Acomsoft
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9	Adventure Quest
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OUL

1	Ghostbusters Activision
2	Impossible Mission CBS
3	Daley Thompson Decathlon Ocean
4	Raid over Moscow Commodore
7	Bruce Lee US Gold
8	Booty Firebird
9	Combat Durreli
10	Beach-Head US Gold

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Commodore joins price war

Commodore rolled up it's sleeves to join in the price war last week, with the announcement of a massive 50 per cent reduction in the price of the Plus/4.

The Plus/4, Commodore's newest model, has been slashed from £299.99. The machine is a competitor of the QL and the BBC, but weighing in at £149.99, it's now a much more attractive prospect.

The Plus/4 has 64K memory, of which 60K is usable. Howard Stanworth, Commodore UK general manager, said: 'At £150 we're offering the public a really powerful and versatile computer at a price which until now has only applied to machines designed for first-time buyers.'

'We think at this price the Plus/4 is head and shoulders above it's rivals.'

Commodore has no plans to cut the prices of the C16 or C64, according to a company spokes-

Commodore's move follows Acorn's announcement of a £70 price cut for the Electron, and Sinclair's repricing of the Spectrum Plus at £129 — a £50 reduction. The Plus/4 now offers good value for money at just £21 more than both these 'beginner's' machines.

And the price cut was one more move in a week full of drama and crisis, headed by the suspension of trading on Acorn shares. The price war reflects the turbulence in the computer industry: pre-Christmas sales were disappointing for a number of machines, and new pricing strategies are aimed to shift stock and sharpen up the competition.



Chess champion

Ten-year-old David Essex from Lincolnshire has won the Make your Move chess championship.

This was the first ever contest in which the players didn't leave their schools to play the matches. All games were played on BBC machines linked to Ceefax, the BBC's Teletext service. This had the added advantage that anyone with a suitable television could watch the games as they were being played. was the number one seed: he's already the British under nine champion after just 18 months' playing experience.

Scrablesby primary school, which David attends, is the big winner. The school received a BBC computer system including a teletext adaptor. Runner-up was Cathy Haslinger from Hayes and her school have a new computer too. Over 6,000 primary schools throughout the country took part in the championship, which may now become an annual event because of its popularity. sales of educational titles, saying: 'An educational best seller is only equivalent to a game at around number 50 in the charts.' She observed that an average title would have no chance of success. 'To get anywhere at all an educational title must be very good indeed.' However, she believes that the educational side of the market is 'definitely steady',

Mr Clements was adamant that Five Ways is only suffering a temporary setback. He said: 'Five Ways is definitely not going down.'

Five Ways, Imperial House, Bourville Lane, Selly Oak, Birmingham

Coming soon...

Dragontorc of Avalon is to be the next adventure movie from Hewson Consultants.

Based around the same style and format as Hewson's bestselling Avalon, there are some additional features.

All the characters have a personality of their own and the whole race has an attitude to you. For example, if you kill one member of a race the whole group will rapidly become your enemies.

Each member of the race also has an individual response to you. Some are more pleasant than others. In all, it's a game in which you choose your role before you start to play.

Whether you're Mr Nice Guy or Nasty Norah, you won't be able to find the game on the shelves until March 28th.

Commodore UK, 1 Hunters Way, Weldon, Corby, Northants NN17 IQX

PSS is about to release it's first titles for the Amstrad: Frank 'N' Stein and Battle for Midway.

Frank 'N' Stein is a 50 level platform game in which players must collect parts of Frank's body. Battle for Midway is a computer version of the World War II Battle in the Pacific.

Frank 'N' Stein will be handled by Amsoft and will cost £8.95, and Battle for Midway will be dealt with by PSS at a price of £9.95.

PSS, 452 Stoney Stanton Rd, Coventry CV6 5DG The result wasn't too much of a surprise however. David

Staff axed

Five Ways Software, a software house which deals exclusively in educational titles, has sacked eight of its staff, mostly programmers.

Five Ways was set up by MEP, the Microelectronic Education Programme, but later went independent. The MEP project is due to end this year and Tony Clements, Managing Director of Five Acorn, Fulbourn Rd, Cherry Hinton, Cambridge

Ways, said: 'There are several reasons why we have had to take these measures. The MEP project is ending and Longmans is pulling out of the software market.' Five Ways has produced several programs on commission for Longmans.

Mr Clements also said that the general trends in the software market were not favourable to educational programs at present.

year and Tony Clements, Elizabeth Collins of Websters Managing Director of Five Distribution commented on the

Perhaps you should start practising now.

Hewson, Hewson Hse, 56b Milton Trading Est, Milton, Abingdon, Oxon OX14 4RX



Tom Frost of Montrose has carried away the prize for the first adventurer to complete the entire Ket trilogy.

This involved playing three different games and solving hundreds of puzzzles. He started the first of the games a year ago as soon as it was released. After the release of the last part it took him three months to get past the five guardians.

Rex Taylor of Milton Keynes also cracked the game, but his

NEWS

answer arrived whilst Tom's was being checked.

Incentive often give a prize to the first player to finish it's puzzles and games. The latest cassette is a licenced version of the Moon Cresta arcade game: the winner of this competition will be given the actual arcade machine.

Incentive appears to be slightly confused over the prize which will be offered with it's new game Confuzion. A spokesman said: 'We haven't thought of anything for that one yet."

BBC, Commodore 64 and Dragon users can look forward to a year of mystery. Incentive will soon be releasing versions of Ket for their machines.

Incentive, 54 London St, Reading RGI 4SO



Oric's latest add-on will be supplied free to all Oric-I and Atmos owners on request.

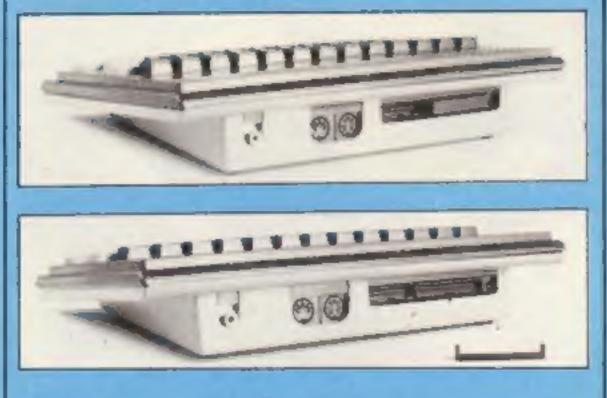
This 'engineering improvement' is a protective cover for the expansion bus connector at the back of these machines. It's major purpose is the prevention of power shorting due to careless insertion of the power lead, but it will also protect the interface from coffee, dust and other foreign bodies.

Any owner who would like to have one of the new protectors should send a stamped addressed envelope to:

Tansoft, Techno Park, Newmarket Road, Cambridge



Tom Frost (right), first to crack the Ket trilogy



Now you see it... now you don't

should give a perfect match to your computer.

Binatone, Binatone House, 1 Beresford Avenue, Wembley, Middx

Superior prizes

There were eight titles in our Superior Software wordsquare and 25 winners will each receive four Superior games. The winners are: Sieve Bennett, BFPO 41: Adrian Hall, Cowes; Richard Poaton, Southwater; George Carrick, Wallsend; Joseph Toomey, London; Karen Haggerty, Blyth; M Newton, Newquay; W Finlay, lyybridge; David Reynard, Bradford; J D Howe, Romford; M Brazell, Rye: T J Williams, Rusuden: Rakesh Patel, Crawley; Rachel Maote, S Croydon; K Chua, Birmingham; J Gay, Aylesbury; Paul Warren, Doncaster; Janet Gibson, Rossington; Gary Taylor, BFPO 39: Datten Nisbett, Leicester; Chris Whitehead, Manchester; Chris Gibson, Nottingham; Andrew Clarke, Atherstone; P M Green, Farnborough, Sean Harrison, Rotherham.

Shuttle winners

There were six Activision titles in our Space Shuttle competition. Fifty winners will each receive a copy of Space Shuttle.

The winners are: Andrew Bell, Southampton; Richard Brown, Nottingham; Paul Torpey, London; Gary Everett, Middx; D Sanderson, Tyne & Wear; Richard Few, London; Colin Kidd, Peincuik; C Dolan, Middx; D Roebuck,

Hey, good looking

Good looks and 'optimised circuitry' are the star features of Binatone's new data recorder.

The machine has a stand-up cassette slot which Binatone claims 'makes old shoeboxshaped' recorders look out of place next to today's computers',

Two models will be available: for machines accepting a standard cassette input lead, such as the Spectrum, BBC, Electron and MSX at £29.95, and a dedicated version for the Commodore VIC-20 and 64 models at £34.95.

One feature is a monitor for audio verification of tapes, cue and review for fast winding to particular programs and a tape counter. The aim is to take the guesswork out of buying a cassette recorder, as each model | Binatone data recorder

Rendered DATE DOLLARS manth

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Lymington; C Huggett, Gt Yarmouth; Mark Coopet, Winsford; Matthew Hayward, Selsey; Andrew Diddle, Richmond; S Hill, Hempstead; R Barlow, Scunthorpe, C Price, Surbiton; R J Henthorn, Newport; Andrew Kempson, Luton; Ian Campbell, Glasgow; Ewen Campbell, Dingwall; A Donovan, Plymouth; David Porter, Rochford; Andrew Morrison, Alloa; M O Hook, Pontypool; S M Dunne, Upminster Bridge; Robert Stokes, Maidstone: Alexander Grant McNabb, Bromley; Robin England, Thetford, G M Corbett, Dingwall; C Crane, Trentham; F H Reed, Hoddesdon; B D Evering-ham, Romford; Stephen Allen, Enfield: Paul French, Edmonton; Timothy Salter, Tyybridge; P M Williams, Barry, Sean Conway, Kilkenny, Jonathan Bell, Salisbury; Harvey Whiteman, Loughborough; Carlo Somers, London; Nicola Gilmour, Paisley; Gordon Ross, Dundee: Athol! Grant, Stonchaven; Christopher Bosk, Walsall; Paul Martin, Washington: John Howe, Romford: Neil Rose, London: G R Holton, Benfleet

COMPETITION

Ever wanted to be rich beyond your wildest dreams, or wander the world in search of jewels? Well, we can't do anything about the riches and the world, but we can send you on a search for real jewels.

The week one lucky reader will win £200-worth of jewellery. The prize will be a voucher which can be exchanged at any branch of H. Samuel. This means you can choose your own prize, to a value of £200, from H. Samuel's range of gemencrusted merchandise.

There will also be 25 runners up who will each receive one of Interceptor's range of computer games. Owners of Spectrum and Amstrad machines will win a copy of Jewels of Babylon, priced at £5.50 and £6 respectively. C64 and VIC-20 owners will win an alternative title from Interceptor.

Interceptor's Jewels of Babylon for the Amstrad CPC464 and Spectrum computers, is a fascinating, adventurous romp through the Indian Ocean in search of Queen Victoria's lost jewel.

The jewel collection concerned was created 3,000 years ago by a skilled Babylonian craftsman. It was brought to Britain and then sent as a present to an Indian pricesss on the occasion of her wedding. During the journey from Africa to India the ship was attacked by pirates and you are the sole survivor from the crew. Taking a vow to recover the lost gems, you set off by ship to the island which the pirates use as their base. This is where the game starts. You have to find your way past a whole host of nasty creatures and devious puzzles before you can meet the sleeping pirate. You will encounter lions, fish, spears, fruit - poisoned, of course, - a talking parrol, crowbars and the pirates themselves. What's more, you must find a different way back once you have the treasure in your hands.

There's a £200 jewellery voucher to be won this week — plus games galore — in our

COFTWARE



expanding range. This offer is available to everyone entering, but, if you don't wish to accept, please indicate on the entry coupon.

How to enter

Look at the jewel symbol on this page. It's very distinctive and there are others exactly the same scattered throughout this week's HCW.

Go carefully through the magazine and count all the jewel symbols you can find. When you are sure you have found them all, fill in the number on the entry coupon.

Complete the coupon clearly and fully — if you are a winner it will be used as a label. Send the coupon to us.

Important: write the number of jewel symbols you find on the back of your envelope.

Send your entry to: Interceptor Software Competition, Home Computing Weekly, No. 1 Golden Square, London W1R 3AB. Closing date is first post on Friday & March, 1985.

You may enter as many times as you wish, but each entry must be on an official coupon — not a copy and scaled in a separate envelope

Prizes will arrive from Interceptor Software within 28 days of the publication of the results of the competition.

The rules

Entries will not be accepted from employees of Argus Specialist Publications, Interceptor Software and Alabaster Passmore & Sons. This restriction

Phane and the second se

little easier. All you have to do

is read this week's HCW care-

fully. As you do so you will see

a number of jewel symbols like

the one on this page. To win

this week's prize you must

count the number of jewels.

including the one on this page.

and enter this number on the

join the Interceptor Software

club at no charge. You will then

be sent a free poster and a

regular newsletter containing

competitions, discount offers

All entrants are eligible to

also applies to employees' families and agents of the companies. The How to Enter section forms part

of the rules.

Interceptor Software Competition

Entry Coupon

	-	-
-		 me

Address

post code

Number of jewels found

competition

Type of computer (Spectrum/Amstrad/C64/VIC-20))

I do/do not wish to join the Interceptor Software Club

(delete as applicable).

Complete dearly and fully — if you are a winner this will act as a label for your prize. Posito Interceptor Software Competition, Home Computing Weekly, No.1 Golden Square, London WIR JAB. Closing date: first post, Friday & March, 1985. Don't forget to follow closely the advice to the How to Enter section, including writing the number of jewels loaded on the back of your envelope.

HOME COMPUTING WEEKLY 19 February 1985 Page 7



coupon.

SPECIAL REPORT

Genevieve King reports on behind the scene action at Channel 4's newest computer programme

Channel 4's new computer series is now well under way. Entitled 4 Computer Buffs, it is described by Channel 4 as a programme for the 'serious computer user? Home Computing Weekly was invited to sit in on the rehearsals for the first programme.

The series is being produced by the team responsible for Thames Television's Database and viewers will already have recognised many familiar faces. Presented by Magpie veteran Tony Bastable, the rehearsals took on a very professional feel, although there were some hiccups.

Tony is assisted by Jane Ashton and Dr Mike Thornes. while computer journalist Guy Kewney deals with the news, views and comment section. There is also a regular modem item presented by Ben Knox.

Channel 4 describes 4 Computer Buffs as a series which is 'tailored for the serious home computer user! At the rehearsal Tony Bastable was heard to remark jokingly: "This is Database with absolutely incomprehensible content?"

Hopefully, home computer users won't have cause to agree with this!

According to Channel 4, the programme is aiming to report on the latest in new technology and features many practical demonstrations of how home computer users can utilise the full potential of their micros. During the series there will be a number of television innovations. These include the first ever transmission of software, the first interactive bulletin board and the first TV comparative bench test for hardware. The series will also launch Prestel's new school service, Schoollink. The light transmission of software was featured in the first programme of the series, Viewers were shown how to assemble a light pen which can read data off a flashing light at the corner of the screen. The process, described as telesoftware via light pen, was certainly a first, and Channel 4 seems very conscious of the pioneering nature of the series.

The making computer Buffs



CHANNEL FOUR TELEVISION

will the most lasting aspect of the series, since it is to continue after the seven half-hour programmes come to an end in a few weeks' time. It is an addition to the telectronic direct mailbox to the production office, which has already proved popular with followers of the Database series. It is being organised through the about ideas and activities. Channel 4 is also hoping that the bulletin board will provide a forum for debate on subjects which are important to those involved in the computer industry.

The comparative bench test which has been devised for television by David Tebbut is another revolutionary item. called telesoftware, 4-Tel is Channel 4's equivalent of Oracle, the ITV teletext service. In a few weeks' time the new 4-Tel service will begin transmitting software which can be downloaded by users. Users will need a new decoder, developed by OE Limited. It is called the 4-Data adaptor and at first will be available for the 48K Spectrum only, although versions for other popular micros will follow soon.

The adaptor is endorsed by Channel 4 and allows users to receive not only teletext information from 4-Tel, Oracle and Ceefax, but also the free software that is to be broadcast by the 4-Tel service. According to OE Limited, it has been designed to fit neatly under the Spectrum and includes special features which enable you to store teletext information on microdrives and print the data using a Spectrum compatible printer. Transmission of telesoftware will be broadcast on Channel 4 on Tuesday mornings between 10 and 10.30 and 11 and 11.30 am. This will consist of commercial software which can be downloaded using the OEL adaptor, and the programs will be accompanied by rolling teletext information.

The interactive bulletin board

Nottingham Building Society's mainframe computer and can be contacted on Prestel 7776.

The bulletin board will provide news, not only about the programmes, but also concerning general subjects of interest to the computer user. It will also enable users to contact each other with information

OEL's telesoftware adaptor

Spotlighting BBC, Amstrad CPC464 and OL computers at first, each machine is dealt with in seven minutes of viewing time, although many hours of research are said to have gone into the feature.

The programme will also preview an important development in the world of so-



3D Star Strike 48K Spectrum

Real Time Software

When I first saw this, I was less than impressed, but as I played it a little more it's started to grow on me and my fellow players. It is a space battle game with three distinct phases.

In the first you are speeding through the galaxy to take on your enemy at his home base. You have to destroy the enemy ships whilst at the same time avoiding their fire.

The second phase has you flying over the planet surface to destroy enemy buildings. On the third you approach the enemy power plant through a duct and avoid catwalks that are at various levels around you.

Finally, there is the power plant to destroy. This takes great accuracy. The game is fast, the

graphics, based on wire frame animation, are good and interesting and there is some variety between the different screens, having said that, I feel that this isn't one of those games that I would want to play again and again, Perhaps I'm Just getting old and jaded with all this killing in space. D.C.

65%

75 M

859%

759%

instructions playability graphics value for money



3D Lunattack C64 E7.95

Hewson Consultants, 56B Milton Trading Est, Milton, Abingdon, Oxon OX14 4RX

This is a sort of flight simulator. as you would expect from Hewson, You fly around the moon, attacking the Seiddab land and air forces while protecting your own fuel base, it's very complicated, and a glance at the instructions would be enough to put off anyone but a real enthusiast, which I must confess I am not.

There is a lunar map which shows your position and the enemy's. Unfortunately, it's difficult to tell which is which. Your craft can operate in three different modes, determined by the shape of your gansight -

square, octaconal or diamond shaped. It's difficult to stay in the right mode, the craft switched from one to another by means beyond my control.

There are seven enemy weapons systems; hard to identify and harder to shoot. There are also lunar mountains and craters. I wasted time trying to shoot these, having mistaken them for tanks.

Overall, I felt the graphics were not good enough to make a game of this complexity workable - but you may well disagree. M.N.

instructions. 70% 40% playability graphics 50% 50% value for money



Moon Cresta 48K Spectrum E6.95

Incentive, 54 London St. Reading RG1 4SQ

If you like the arcade game you'll love this Spectrum version. Incentive have bought the rights and has produced a version as close to the original as possible in the Spectrum.

For those not familiar with Moon Cresta, the game involves blasting successive, sheets of aliens that are trying. to destroy you. However the' aliens don't just sit there and let you shoot them, they rush around the screen in circular patterns and will also dodge bullets if they can. Once a certain number of sheets have been exterminated the player gets a chance to dock his section of ship with the next. section. If he is successful, the new ship has increased fire power. This can be done twice at which stage the ship fires five bullets at once!

space blasters

Space games galore. Five alien blasting games for the addict

Defend or Die Amstrad CPC464 £7.95

Alligata, 1 Orange St. Sheffield SL 4DW

Earth is being invaded by aliens whose nim is to abduct your fellow human beings, At the helm of your leasty starfighter you skim the planet's surface picking off the alien craft as they kidnap your commitades and head for onter space.

Even when an alien has a human in his grasp, all is not lost. One clean shot between the eyes will disputch the green meanie, but it will also leave the numan to fall to his death. Using every last ounce of your flying skills you intercept the man in w mid air and return him safely to the ground, gaining 1000 points in the process. The scrolling action that has h become the trade mark of defender is executed impeccably, and the characters are identical, to the originals. One of the Allighta's own trade marks is the excellent use of the Amstrad's stereo sound capabilities when used with a stereo amplifier. The dog dived for cover every time my starfighter unleashed a volley of electric death at the alien hoardes.

Naturally the aliens also get faster, dodge more and even split into two when hit.

The program is well done with very last action and impressive graphics. It has a colourful loading screen that is replaced by a menu that has 'lcons' rather like those used on expensive business machines. The menu gives the player the choice of keyboard control or any of the major joystick interfaces. J.G.D. instructions playability 100% 90% graphics 85 1% value for money

Space Shuttle C64 69.99

This is a very realistic simplation flight. of a space shuttle flight. It has tation with NASA and incorpor- the correct altitude you set up a ates many features. You are stabilising orbit and try to dock provided with a 31 page Flight with a satellite. You then start a Manual specifying how you fly de-orbit burn and attempt rethe shuttle. This is very well entry, finally touching down. produced and contains high quality colour pictures of the flight simulators. screen displays. A cardboard overlay is provided to customise instructions the function keys.

There are three flight modes. graphics Mode I gives a demo of a value for money complete space flight, from take off to re-entry and touch down. During this you can exercise inited control and the payetick

criors so the mission is completed safely. In Mode 2 you Activision, CGL Hse, Goldings have unlimited fuel and the Hill, Loughton, Essex IG10 2RR onboard computers can take over. Mode 3 is a full fledged

During launch the screen been designed after close consul- vibrates and shakes, on attaining

The flight simulator to end all LC II

100%

90%

001 a

1.00⁴ n

playability

If there was ever a program that you should buy for your Amstrad then it has to be this one. J.R.

instructions 8000 100% playability 100% graphics A195 value for mose

HCW is 100 today! No telegram from the Queen, I'm afraid, but lots of good wishes from friends and readers, I hope. As the new editor of the magazine, the 100th issue seems an appropriate moment to look back at the past and tell you about our plans for the future.



HCW burst on the streets on March 8, 1983, with a lead story about the challenge the new Dragon machine was posing to the (then) well-established Colour Genie. Interesting, isn't it, that just two years later both of these machines have had great troubles and seem to have vanished from today's home computer scene of today. I

4

know there are lots of contented owners still using the machines, but it can't be claimed that the sales are earth shattering today.

Another feature of the first issue was an opinion column by Henry Budgett, then editor of Computing Today. In it he railed against the poor documentation often supplied with new computers and the number of bugs found in new machines. I have a feeling that I could run the piece again this week and it might be just as relevant. I'm sure that manufacturers have improved the care that they take over such details, but there are still machines being released to an unsuspecting public with little niggles and bugs waiting to be cleared up.



Authority.

Two pacyle objected to an

Another complains was

Colour Genie Sons Alan Whit- | 1224, although his company, ford is just back from salks in Hong Kong on how to slay the Genic has fai more features. Dragout

His problem is that, at 1199 for 12K of RAM, the Welsh-made Design 32 has should Ely, twice the numbery of the stanshard Colossi Genie, priced at 1

advertisment for the Section 73(8) which showed three countries but Lowe Electronics, says the RAM memory presention was There is, however, a highly priced V2K Colour Canad, or mercled to run sizes. (6K can be added internally for

The assourt his Whisnord need . is a postable casers are could be used. Aporn agreed

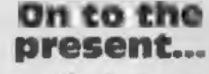
brought lock from makers. EACA was no can add music memory is standard if move Column Genues and solid, an printing down production COSTS Sance the November Isonch, 2,500 Colour Genies have been purchased and a f150,000 adventsing compaign begins in lune with a new advertising. agency, chosen from a list of

the 2X81. Soular and 8 did not chains all presenters greakl be total and that it scould mapply a list of a it from belt that worth

above is close that the Drogon 32. with 325 was rate to powerful as its competition and included the His, Sportrum In a comparison.

Dragers toill the ASA that at the time they underwood the 400. fushed to pessit our this; is 16K. Spectrum was not readily arastable to it could see be compared.

The possesser fixed by Acorn was about a boothers for about the places: "All yes, as Atom which wat any UHS TV coorder." Several makes of some TV and were incomparized



-252

I was working for the magazine even before it's first issue. I had been asked to write my first software reviews and articles a couple of weeks before the first issue appeared and was very excited by the prospect of a weekly magazine featuring news, software reviews and programs. The emphasis was always that HCW would be the first and best magazine for software. We have featured more software reviews in a week than most monthlies can manage in three months.

Another feature of HCW at it's launch, which we still adhere to today, is it's emphasis on home micros. The magazine doesn't flirt with business machines or programs. We feel our readers are interested in games, educational and utility programs, but don't want to know about the best spreadsheet since the duvet was invented. Many things have changed since the first issue. The industry has certainly changed a great deal. The BBC, VIC-20 and Spectrum were with us then, but the Commodore 64. Amstrad, Atari XL and the Electron were just twinkles in their designers' eyes. Software was mainly sold by mail order and computers usually came from specialist shops. Now 25 per cent of all computers are sold by one high street retailer with the other multiple stores making over 50 per cent of the market. Quite a change, I'm sure you'll agree. HCW hasn't remained unchanging over this period either. Issue 29 was the first to feature a full colour cover and had the cassette cards of reviewed software splashed

ZΧ Microfair: first report Pages of news **Reviews** of programs for ZX81, Spectrum, VIC-20, BBC Programs to type in for: VIC-20, BBC, TI-99/4A, Oric-1 Articles on VIC-20, Atari **Profile of** software house

Χ.

18. Mr Whilterd, sho will now he holding talks with his felline directors, races a second difficulty - the increasing -alue of the Yes is making imports move costly.

He wid: "It may be down in two mages. We can add that as standard now without any other charges. Going to 48K or reen 64K would mean a redesign job and would be a MR11

ocram. "Thi a little worried that the might not happen for iwo to three months."

Mr Whitford visits Hota Kong every year, along with distributors from Germany, Spain, Sweden and Italy. As well as three lengthy meetings, they attended a tpring hanquest with EACA's 1,000 employment to mark the Chinese New Year He brought back with nonsamples of two plug-in games

Customend on penn 3

Three mind benders 111111 For details please ring 051-236 6849 across the front. This continued 1 assue for a year until Sinclair surprised us all by releasing the Spectrum Plus. This was so important that for the first time HCW had a piece of hardware across it's cover. About a month later it was decided that the logo needed a brush-up and today's logo was seen for the first time. This isn't the final change, though

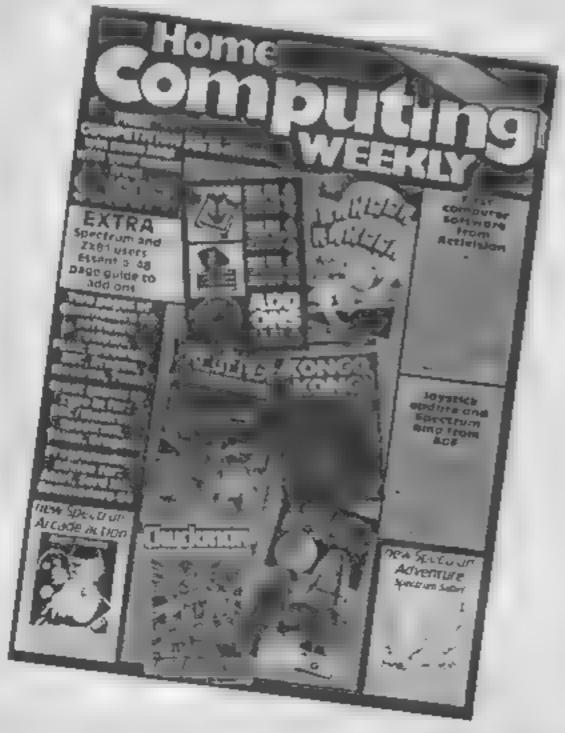
Coming soon

issue 102 is the start of something really new. HCW is to be completely redesigned and relaunched on March 5, 1985, just two years after the first 1

Those who read regularly will know that last Autumn we had a reader's survey so that we could know what our readers wanted from a magazine like ours. In response to this, things are really changing at HCW

The new magazine will look very different; new cover, new page designs and a whole host of new features. There will still be plenty of news, software reviews and programs for you to type in, but just look at the list of new regular features.

There will be a new Readers' Page with puzzles, comments, jokes and hi-scores, including photographs of the best players We really need your ideas for





this one; which games do you want us to include? Do you know any funny jokes or computer stories. Are you the best dragon slayer in the town? If you are, then we need to hear from you soon.

Hardware and peripherals are becoming more important as people keep their micros longer and want to extend the ways in which they use them. Although we have had occasional reviews. of these products we will be featuring a whole page of reviews each week in future. We occasionally have letters asking us to review certain items, but we would like more. If there is a product you would like us to review, tell us about it. We aim to please!

The software review pages will be looking different too-There will be longer reviews of star programs, and look out for Dauntless Dave. In the future Dave will be telling you just | you won't want to miss!

what he thought of all the new programs. He tends to react in rather strange ways to the programs he sees, but more of him in Issue 102. By the way, BBC and Electron owners can have a sneak preview of Dave by typing in Jon Revis's program in this issue

There will also be changes to almost every other page in the magazine, but I daren't reveal too much at this stage. The boss might realise how much all this will cost and then I'm in trouble.

Make sure you don't miss your HCW each week. Order it from your newagent or by post from the address on the contents page

P.S. Want to save money on software? Or do you want an obedient robot of your own?

Issue 102, at your newsagent on 5th March, has offers that



1 Sandy Road Top Floor Seaforth, Liverpool L21 3TN Tel: 051-928 8443/4

PROGRAMMERS

WEARETOOKING FOR TOPTOWALL TYPROGRAMMEST CMARKET INTHE UKAND ABROAD THE PROGRAMMES MUST BEIDE TOP OUALIT AND A ACHINE CODEW/ITH GOOD GRAPHICS AND SOUNDS AND DRIGINAL CONCERT INVEARE LOOKING FOR PROGRAMMERS O CARR SOULWORK NEVAMACHINESIS B.M. 6AMSTRACAND M.S.X WE WARESUPPORT THESE MACHINES TO ARP. WORK FOR WHE AREADS OLD FFERINGESSOO RRIZE FOR THE BEST MIRAGE PROGRAMME RECEIVED BY THEER NO. OF REERING RY 1985 WATCH SVEWAR DECIDE MARKET WE DEFER ANTON RUSHI PAYMENT OR OF PLUSPAYMENT OR 20 ROYATERS FOR MOREINFORMATION FORTAR THE SOFTWARE MANAGER HE ME BE STATE DESCRIPTIONS ROLL MAY HAVE

PROGRAMS COMING SOON THE COUNTS CASTLE COMMODORE 64

E6.95 CASTLE GREYSKULL 48K SPECTRUM E5.95

SALES MANAGER T.C. SAPHIER

SOFTWARE MANAGER C.A. SAPHIER

NOTE WE HAVE MOVED TO NEW PREMISES



The Oric has been neglected by the large software houses in favour of more popular micros such as the Spectrum and the Commodore 64. Therefore there aren't any games which could be classed as mega-games for the Oric. However, that doesn't mean there aren't any good games. It's been hard, but the good (and the not so good) games released during 1984 have been grouped together here.

Game of the year

in all honesty, there weren't many contenders for this title. I considered the Oric classic Xenon-1, but it was released too long ago. The only other game deserving this title was a strategy game called Classic Racing by Salamander. This may come as a surprise for those who've never seen it, since strategy games are, on the whole, awful! This particular title is an exception. It has brilliant graphics, beautiful animation and, of course, you need to think!

Best shoot-'em-up It was difficult to decide which game should receive this title. because there are quite a few fantastic shoot-'em-ups; for instance Xenon-1, Marc. Defence Force and Hellion to name but a few. They are as good as each other, but I decided to award the title to Hellion by Orpheus, purely because the others will be mentioned in other sections Hellion, with it's very professional presentation. detailed characters, awesome speed and a mind-boggling 101 screens, certainly deserved this title

This week our experts look at Amstrad and Oric games: the best and the worst are all here

is Level 9. Level 9 is supporting the Oric with it's massive, but logical adventures. Probably my favourite is Colossal Adventure. Another adventure worth a mention is The Hobbin by Melbourne House. It

certainly supports one of the best sentence analysers, and the graphics are sturning

Most difficult game This award must go to Marc by PSS. You are required to

Defence force: loudest game of the year



manipulate no more than seven of your digits simultaneously. The animation of the characters is absolutely first class and the presentation cannot be faulted. All in all, a brilliant game which is impossible to play

Loudest game

Defence Force — a Defender derivative by Tansoft — will aterally deafen you, but who cares with such an addictive shoot-'em-up?!

Video masty

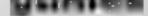
There were quite a number of games suitable for this title. However, it must surely go to killer Caverns by Virgin. This game, written totally in BASIC, has the worst graphics I've ever seen on a micro, non-existent sound and is totally unplayable. Need I say more?

S.S.



Best adventure

With a relatively large RAM capacity, the Oric is in fact very suited for adventure games, but all the best adventures seem to be written for the Spectrum! One software house renowned for the quality of it's adventures



The high standard of the first ever Amstrad awards bodes well for the future of home computing

Now available in most high street stores, the Amstrad CPC464 has become well established, and the Software Awards for 1984 have been chosen from among the best programs to reach the shelves this year.

The inaugural year of the CPC464 has seen the introduction of all manner of programs from the frivolously flightly to the seriously sober.

With rare exception these have been thoroughbreds of their kind — thanks largely to Amstrad's software subsidiary Amsoft

Value for money Taking the top award was Matcal from Camel Micros

CRIVIC'S CHOICI

Worst game

With four useful toolkit programs on one cassette for less than a fiver, it wins the value for money award hand down and is an invaluable aid to the home programmer.

Other software houses would do well to research the marketing strategy of a product which retails so cheaply

Best graphics

Streets ahead of all its competitors, Star Avenger from Kuma Computers wins best graphics of 1984

But, sadly, it also takes the tut-tut award for not having a joystick option, Control from the keyboard is nearly impossible in the faster challenging levels

Most humorous

Most humorous program of the year was Er*bert, from Microbyle Software, whose endearing characters Coily and Borts could surely melt the heart of the most ardent Joystick joggler. A nicer pair of nasties would be hard to find

Undoubtably the worst program award goes to Solid Evaders from Solid Software This bug-ridden shoot-out had to be played on top of the instruction page - which needed to be shot away first

Premier adventure

Interceptor Software pushed Jewels of Babylon under the portcullis of the old year to rescue the premier adventure. award from under the noses of their nearest rivals Level 9.

Software house of 1984

Level 9 doesn't go away empty handed. Specialising in adventure games, Level 9 takes the software house award for continuing to strive for even better quality with each new release.

Critic's choice

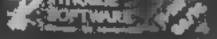
Easy-Amsword saves hours of work and innumerable typewriter rubbers.

D H.









ATLAN7.5 Base from 80 enterity det erroret scennes. Eller has a title process where is report, this among the keybooks, or In traction we recent the second of 1.25 Atlantis Sake a pair for 5.95



BENEATH THE STARS (Barn More State among a to may have to an over plan of cames ormer of 3-by 191 £5 16



SNOUT OF SPOUT OF BAN M. 1968 of the Ser the third of some of other IT IS A A & Stee, and save the plane busic



Children Contraction Ear igner 5 to V Pasm tothe and avera total 7 # 1 NTRIGLE ANIMATION F any one 10 mar tempeter and your marks 0 nl 15 /6



QUAS MODO HELP BY BY _ <u>/</u>P where it are an exception of the Barris Care. ere Estimate a waiting for your Shangt off you go.



ADVENTUREMAN A Base The only 7 asserte game chosen by Games Community inter the gr100 for 1984 Protois, the most enjoyable graphic and ter advectors available. 30 locabons of Eventerins Calinos, Computers, en-£5.95 will let you decide for yourself



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QUICKSHOT 1 JOYSTICK TI 99 4A interlaced F 3 70 Given fanjastic control in gemes Ma Atlantis Spectrum/CBM Version (9.25) Price includes 75p P & P

Page 14 HOME COMPUTING WEEKLY 19 February 1985

This singaiong program for the 1) 99 4A wull play Bapps Birthday whilst showing the cake and candles on screen You r ght choose to use it as a birthday surprise and ask those celebrating to blow out the electronic candles on screen After a few blows and when

After a tew close blue in the everyone is going blue in the tace, a press of any key will do the job for you.

TI-99/4A PROGRAMS

. ogram from 1 James Wright

THIS PROGRAM IS FOR THE TI99/4A 6 REM BY JAMES, D. WRIGHT 7 REM "HAPPY BIRTHDAY" 8 REM 10 CALL CLEAR 20 CALL SCREEN(2) 30 CALL CHAR(64, "FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF) 40 CALL COLOR (5, 5, 2) 50 CALL VCHAR (5, 16, 64, 5) 60 CALL VCHAR(5, 13, 64, 5) 70 CALL VCHAR (5, 19, 64, 5) 80 CALL CHAR(112, "18183030303078787878") 90 CALL COLOR(11, 11, 2) 100 CALL HCHAR(4, 16, 112) 110 CALL HCHAR (5, 16, 113) 120 CALL CHAR(113, "FFFFFFF7E7E3C3C1818") 130 CALL HCHAR(4, 13, 112) 140 CALL'HCHAR(5, 13, 113) 150 CALL HCHAR(4, 19, 112) 160 CALL HCHAR(5, 19, 113) 180 CALL COLOR(16, 16, 2) 190 CALL HCHAR(10, 11, 152, 11) 200 FOR I=1 TO 8 210 CALE COLOR(1,9,1) 220 NEXT 1 230 CALL HCHAR(18, 4, 104) 240 CALL HEHAR(11, 10, 152, 13) 250 CALL HCHAR(12, 9, 152, 15) 260 CALL HCHAR(13, 9, 152, 15) 270 CALL HCHAR(14, 9, 152, 15)

500 CALL SOUND (1200, 330, 0) 520 CALL SOUND (300, 252, 0) 530 CALL SOUND (300, 262, 0) 540 CALL SOUND (600, 294, 0) 550 CALL SOUND (600, 262, 0) 560 CALL SDUND (600, 392, 0) 570 CALL SOUND (1200, 349, 0) 580 CALL SOUND (300, 262, 0) 590 CALL SOUND (300, 262, 0) 600 CALL SOUND (600, 262, 0) 610 CALL SOUND (600, 440, 0) 620 CALL SOUND (600, 349, 0) 630 CALL SOUND (600, 330, 0) 640 CALL SOUND (600, 294, 0) 650 CALL SOUND (300, 494, 0) 660 CALL SOUND (300, 494, 0) 670 CALL SOUND (600, 440, 0) 680 CALL SOUND (600, 349, 0) 690 CALL SOUND (600, 392, 0) 700 CALL SOUND (1200, 349, 0) 720 CALL SOUND (300, 262, 0) 730 CALL SOUND (300, 262, 0) 740 CALL SOUND (600, 294, 0) 750 CALL SOUND (600, 262, 0) 760 CALL SOUND (600, 349, 0) 770 CALL SOUND(1200, 330, 0) 790 CALL SOUND (300, 262, 0) 800 CALL SOUND (300, 262, 0) B10 CALL SOUND (600, 294, 0) 820 CALL SOUND (600, 262, 0)

```
280 CALL HCHAR(15, 9, 152, 15)
290 CALL CHAR(40, "FFFFFFFFFFFFFFFFFFFFFF")
300 CALL HCHAR(16, 8, 40, 17)
310 CALL HCHAR(17, 9, 40, 15)
320 CALL COLOR(2, 5, 2)
330 CALL CHAR(41, "FF7F3F1F0F070301")
340 CALL HCHAR(17, 8, 41)
350 CALL HCHAR(16,7,41)
360 CALL CHAR(42, "FFFEFCF8F0E0C080F")
370 CALL HCHAR(17, 24, 42)
380 CALL HCHAR (16, 25, 42)
390 CALL CHAR (153, "0103070F1F3F7FFF")
400 CALL HCHAR(10, 10, 153)
410 CALL HCHAR(11, 9, 153)
420 CALL CHAR (154, "BOCOEOFOF8FCFEFFF")
430 CALL HEHAR(10, 22, 154)
440 CALL HCHAR(11, 23, 154)
441 CALL CHAR (56, "8142241818244281")
442 CALL COLOR(4, 5, 16)
443 CALL HCHAR(18, 1, 56, 224)
450 CALL SOUND (300, 262, 0)
460 CALL SDUND (300, 262, 0)
470 CALL SOUND (600, 294, 0)
480 CALL SOUND (600, 262, 0)
490 CALL SOUND (600, 349, 0)
```

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830 CALL SOUND (600, 392, 0)
840 CALL SOUND (1200, 349, 0)
860 CALL SOUND (300, 262, 0)
870 CALL SOUND (300, 262, 0)
880 CALL 50UND (600, 262, 0)
890 CALL SOUND (600, 440, 0)
900 CALL SOUND (600, 349, 0)
910 CALL SOUND (600, 330, 0)
920 CALL SOUND (600, 294, 0)
930 CALL SOUND (300, 494, 0)
940 CALL 50UND (300, 494, 0)
950 CALL SOUND (600, 440, 0)
960 CALL SOUND (600, 349, 0)
970 CALL SOUND (600, 330, 0)
980 CALL 50UND (1200, 349, 0)
981 CALL KEY (0, K, S)
982 IF 5=0 THEN 981
983 IF K=30 THEN 984
984 CALL COLDR(11,2,2)
985 CALL COLOR(11,11,2)
986 CALL COLDR(11,2,2)
987 CALL COLDR(11, 11, 2)
988 CALL COLDR(11, 2, 2)
990 FOR DELAY=1 TO 90000000000000
1000 NEXT DELAY
```

SPECIA

Program compactor

One of the most annoving features of the BBC is lack of memory. If you have a discbased machine, in MODEs 0-2, you have less than 6K to play with! So programs must be as compact as possible.

In BASIC, this may be achieved by avoiding unnecessary spaces, REM statements and using plenty of multiple statement lines. All but Toolstar had some sort of facility to shorten a BASIC program. Toolkit allowed you to remove REM statements and/or unnecessary spaces. However, it didn't create multiple statement lines.

Addcomm has the most flexible compact facility of the lot. Not only does it remove unnecessary spaces and REM statements, it also creates as many multiple statement lines as possible and allows you to specify which part of the program you wish to compact. U-Tools and Carelaker allow you to remove unnecessary spaces, REM statements and create multiple statement lines. None of the compactors attempted to check whether a REM statement to be removed. was referenced by a GOTO statement.

spand

Once the program is compacted, it becomes impossibly difficult to read. A facility to split multiple statement lines and insert spaces would come in useful here and only Toolkit and Toolstar lacked such a facility. All the other ROMs had a lister which separated multiple statement lines. On Addcomm however, it was rather limiting in that you could

The BBC has an excellent dialect of BASIC. It is fast and has many strucure commands not found on other BASICs. However, once you've been programming for a while, you realise that even BBC BASIC hasn't got everything the programmer needs.

This is where toolkit ROM₅ come in There is a plethora of these utility ROMs. for the Beeb, and they all sound tempting; in fact, quality varies greatly. The ROMs reviewed in this article are: Toolkit by Beebugsoft: Addcomm by Vine Micros; U-Tools by Intersoft; Toolstar by Pace and Caretaker by Computer Concepts.

highlighted On Caretaker and Addcomm, the line is listed with multiple statements broken down to aid legibility. The problem with Caretaker's find (*EXCHANGE) facility is that in order to locate keywords, you must look up the token value for that particular keyword! When replacing strings, Toolkit and U-Tools didn't have the facility for selective replacement, only global. Also, keywords couldn't be replaced by Toolstar.

Verify A surprising omission from BBC BASIC was that of verify. The ability to check the contents of memory with that on tape/disc is very comforting, especially to tape users. A verify facility was only implemented on Toolkit and Addcomm. On Toolkit, when verification failed, the memory address at which it failed was given so that it may be corrected with a memory editor (if you had one!); on Addcomm, the offending line was listed and the memory address of that line was also given.

original program and the appended program don't clash When they do, you're informed but [felt that was rather pointless because the original line was overwritten anyway! On the others however, the appended program could have clashing line numbers.

Variable list.

When debugging a program, it is often very helpful to list the active variable names and their contents. Apart from Toolstar. all the ROMs had a variable lister. On Toolkit, you are given the option to dump the resident integer variables or only the active variables. In both cases, the names are listed together with their values in decimal and hexadecimal. On Addcomm. you can list variables but not their values! Rather d sappoint ing On U Tools and Carctaker you can dump variables in a

Search Reulace

Have you ever had to change a long variable name to a shorter one to save memory? You probably had to go through the whole program with the COPY and DELETE keys.

A facility to search and replace certain strings is an invaluable one and not surprisingly, all the toolkits had some sort of find facility. A good find/replace facility should be able to locate and replace keywords as well as strings and should also support wid card facilities, BASIC keywords could be located by all the ROMs.

in most cases the screen display was well thought out. On Toolstar and Toolkit, the line containing the string is listed and the acual string is

serge

Merging programs on the Beeb may be achieved by "SPOOL or *LOADing at TOP-2. However, all the toolkits had some sort of MERGEing facility which attempts to be better than the above solutions. On Toolkit, you must make sure that the line numbers of the

similar fashion to Toolkit

Renamber

The command 'Renumber' is thoughtfully built into Beeb BASIC, the limitation is that you can only renumber the whole program and not parts, if for example you wanted to insert some extra code but keep the rest of the program intact. Only Toolkit, Caretaker and Toolstar had a selective renumber command. The Toolstar implementation was rather weak when compared with the other two.

stove lines.

When developing a large program, it often becomes necessary to move a number of lines to another part, when you want to make a program more modular, for example, I was disappointed to find that only Toolkit had such a facility.

only list one line at a time!

Repair had program

Surely all BBC programmers must have come across the hideous message 'Bad program' at some time or another. All the ROMs supported some sort of repair facility. On Toolkit, Addcomm, U-Tools and Caretaker, the repair facility worked with varying degrees of success. The most flexible was Toolstar's. The command *FLIST allows you to list bad programs with all the corrupted bytes highlighted and the memory address at which those lines reside. Using this facility, the user may edit the program himself.

One of the most useful features of the Beeb is the function keys. One problem is, once you've programmed them, there's no casy way to reprogram them

apart from retyping the definition. Apart from Toolkit and Caretaker, the others allowed you to list the function key definitions and then edit them with the COPY key. On Caretaker, there were commands to load and save function key definitions.

Move program If you have a disc-based machine, you may need to move your BASIC program down to &E00. All the ROMs had some sort of memory mover. On Toolstar however, you had to specify the start and end address of the program as well as the destination address, then issue an OLD command. On all

the others, the BASIC program from the current value of PAGE to TOP was moved to the destination address and PAGE was set appropriately

Memory status

It is often helpful to know the value of certain memory locations. For example the current value of PAGE. HIMEM, LOMEM, program length etc. On all but Toolstar, there was a facility to display. certain memory locations. On Toolkit, free memory, program size, next location, PAGE, LOMEM, TOP and HIMEM are displayed. Also, there is a facility to display information on such things as LISTO, WIDTH etc. On Addcomm and Caretaker, the information given was rather limited. On U-Tools, a useful variety of information is displayed, but they weren't presented in a near fashion like Toolkit

Manual

Toolkit comes with a 32-page A6 manual Despite it's small size, it contains all the necessary information and the individual commands are explained in detail. There is also a section on technical information such as memory usage However, there is no index. Addcomm comes with a 72-page A5 ring bound manual with a bright green cover. There is a brief introduction to it's general use and then a description of each command The descriptions are good and there is also an index U-Tools comes with a 30-page A5 ring bound manual. After a three-page introduction, each of the commands are explained in detail. There is a full index and a complete list of errors together with their full meanings

detailed fitting instructions and then an introduction to machine code¹ The rest of the manual is divided into sections. covering machine code programming aids, toolkit commands, disc commands and the use of these commands within your own programs. Each section is coloured so that you may find your way around the manual without even using the very comprehensive index. How all manuals should be produced.

Carctaker comes with a 30-page A5 ring bound manual After a brief introduction, each command is explained adequately. There is a complete list of error messages, but an index would have been mce

Miscellaneous

A feature unique to Toolkit is it's program editor. This allows you to insert or overwrite parts. of a line quickly and easily Although it is nowhere near as good as the full screen editors as used by MSX systems or IBM, it turned out to be extremely useful for correcting a small part of a long line. Toolkit also has a very useful memory dump facility It must be mentioned that Addcomm supports many powerful graphics and Logotype commands as well as the general toolkat commands. Also a very useful facility of binary.

Addcomm is 'CHAR' which allows you to define a user defined character on a large grid. There were some rather trivial commands such as POPFOR and POPGOS which allows you to jump out of FOR-NEXT loops and GOSUBs, something a good programmer would never do in the first place.

Perhaps most important of all, Addcomm doesn't use the conventional star command system. Instead, the commands are used in a similar manner to BASIC keywords, i.e. they don't have to be preceded by stars, can form part of a multiple statement line and can incorporate expressions.

U-Tools has some interesting commands not implemented by any of the others. For instance, there is a command to save a block of memory as LOCKed file, useful for protecting your machine code programs. "ROMS' lists the names of the ROMs in your machine, while a memory dump facility and full printer dump routine for the Epson range of printers were supported.

Caretaker was the only ROM to have a facility for one-key entry (allows you to enter keywords with one key stroke as on the Elk) and a tab facility. this would be most useful for the non-touch typists; the tabbing facility is useful for all assembly language programmers who like nicely formatted source code.

Conclusion

Toolkit was one of the first toolkit ROMs on the market. However, it still remains one of the best. Admittedly, some of the expected commands are missing, but all the implemented commands are extremely user-friendly. It's obvious that a lot of thought has gone into the design of each of the commands. As such, it is highly recommended, especially to Beebug members who may obtain it at a very reasonable price.

Addcomm is definitely the best value for money ROM on the market. As well as lots of useful toolkit commands, it supports many powerful graphics commands. I felt that some of the commands weren't as 'polished' as Toolkit or Caretaker but nevertheless, for those on a tight budget, this may be the right one

U-Tools offers a useful range of commands, but has some striking omissions.

Toolstar is rather different in that it offers many machine code programming aids and disc related commands as well as toolkit commands. It misses quite a few of the 'standard' toolkit commands and, as such, can't be recommended to BASIC programmers, However, as a general utility ROM, it is only matched by Disc Doctor Caretaker is a very professional product. It's major disappointment was the cumbersome find and replace facility. If this was updated, Caretaker would probably be the best toolkit ROM available As it stands, it's on a par with Toolkit and can also be recommended.

Toolstar comes with a beautiful 136-page A5 ring bound manual. It starts with an introduction followed by

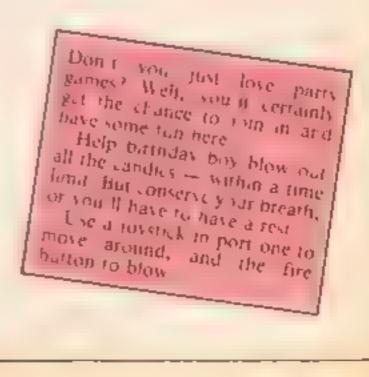
Toolstar supports many machine code programming aids and disc commands as wellas BASIC toolkit commands. Some useful commands are ""RESTART' to clear memory and "CONV' to convert decimal to hexadecimal and

	Toolidi £17	Addenman £28	U-Toola £27	Toobter E34	Caretaker £34
Number of					
commands	25	40	28	22	18
Find			+		
Replace					+
Verify					
Merge		+	+		+
Variable dump		+			+
Renumber	-0			+	
Move lines					
Compact program		+			-
Expand					
Bad program "x		-	-	+	+
Function key list			-	-	
Shift program		+			
Memory status					

Addresses Toolkit: Beebugsoft, PO Box 50, St Albans, Herts Addcomm: Vine Micros, Marshborough, Nr Sandwich, Kent CT13 0PG U-Tools: Intersoft, 26 Netherfield Rd, Sandacre, Notts NGIO SLN Toolstar: Pace, 92 New Cross St, Bradford, W Yorks BD5 8BS Caretaker: Computer Concepts, Gaddesden Place, Hemel Hempstead, Herts HP2 6EX



105 IF (JAND4) AND (XP>50) THEN 2D=>:0-4 118 IF (JAND8) AND (XP(250) THENXD=XD+4 131 IF (JANDIE) THENGOSUB203: GOTO157 144 GOSUB261 157 XP=XP+XD:YP=YP+YD 170 POKEMX, XP:POKEMY, YP:POKEBX, XP:POKEBY, YP+21 183 GOSUB300 136 GOT053 209 POKEWX, XP-24: FOKEWY, YP: POKE53269, 255 222 X#PEEK(53278)AND9+IFX=9THENSC=SC+1+G0SUB664 234 REM BLU 235 EF=EF+1: IFEF=10THENF1=1:EC\$="3" 248 RETURN 261 POKE53269,254 273 REM BLK 274 EF=EF-1:IFEF(ITHENEF=0:F1=0:60\$=""" 287 RETURN 300 FW=FX+(INT(RND(TI)*6+.5)-3)1POKESO+6,FW 313 FW=FY+(INT(RND(TI)+4+.5)-2)(POKESD+7,FW 325 REM HOM-TXT-WHT 5*CRL , 326 PRINT BERNCORE: SC, CL#+*| IME: THE REPORT



64 PROGRAM

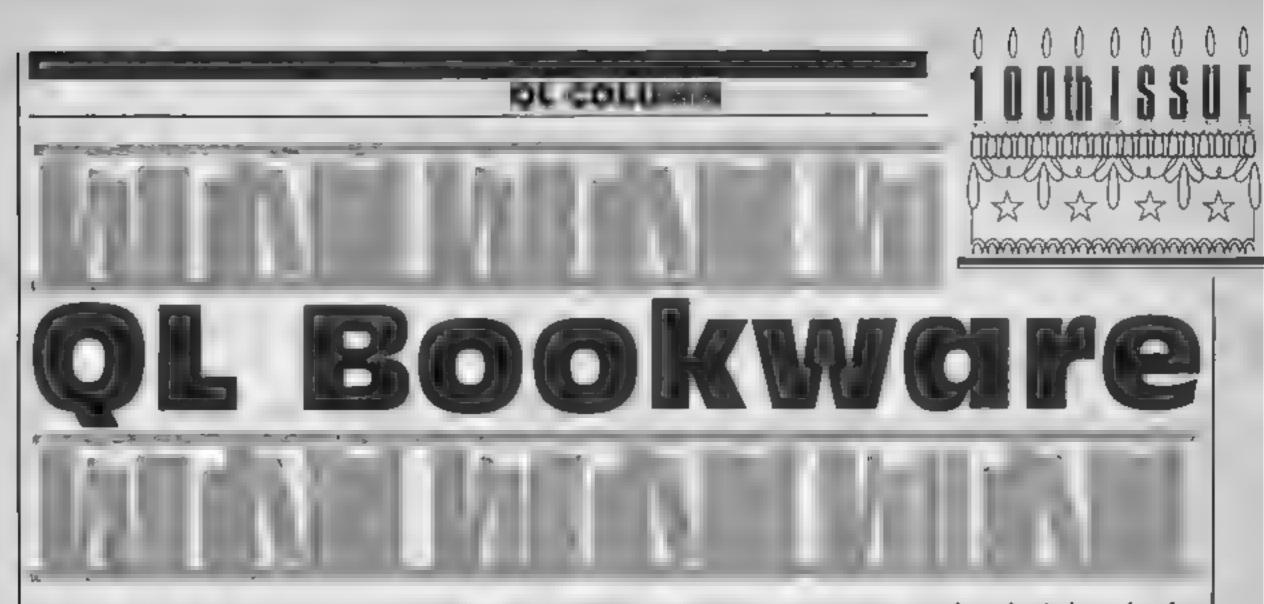
338 REM CRL 339 PRINTEC\$+***XHAUSTION _ACTOR: "EF" # * 351 REM LRD 352 IFTL<50THENCL#="0" 365 TL=TL-1: 1FTL=0THENG0 T0755 378 RETURN 390 PEM CLR-TXT-CTH-GR2 391 POKE53280,2:POKE53281,1:PRINT | IRTHDAY | IME" 403 REM 2*CRD 404 PRINT WANT'S I. HEE COS BIRTHDAY TODAY." 417 PRINT IE'S 100, AND LIKE ALL GOOD BOYS AND" 430 PRINT"GIRLS, HE HAS A PARTY." 443 PRINT" LUT WHAT'S THIS. ALL THE GUESTS HAVE" 456 PRINT | ROUGHT HIM CAKES WITH CANDLES TO BLOW 469 PRINTTOUT - THAT'S 100 CANDLES IN ALL, {OSH!!" 481 REM CR0 482 PRINT " ,SE A JOYSTICK IN PORT 1 TO MOVE ME" 495 PRINT*AROUND AND THE FIRE BUTTON TO MAKE BE" 508 FRINT"BLOW OUT THE CANDLE." 521 PRINT" -ON'T BLOW TOO MUCH OR ~ WILL GET" 534 PRINT*EXHAUSTED AND NOT BE ABLE TO MOVE FOR* 547 PRINT*A WHILE.* 560 PRINT" THERE IS ALSO A TIME LIMIT 'TILL THE" 573 PRINT'END OF THE PARTY, WHEN ALL MY LITTLE" 586 PRINT'FRIENDS WILL GO HOME.. "LEASE HELP ME" 598 REM CRD TRESS ONY PEYM 593 PRINT'N F12 GETA#FIFA#=""THEN612 RE4 REM CRD 62" PRINT MILEASE WAIT FOR A WHILE FOR THE GUESTS" B38 PPINT"TO APRIVE..... 651 RETURN 554 M#INT(RND(TI)#175)+50 677 Y=INT(RND(TI)+175)+50 690 POKESD+6,X+13:POKE3D+7,Y-20:FX=X+13:FY=Y-20 703 IFFR=1ThEN723 716 PONESD+12,X#POKESD+13,Y#PONESD+8,X+12#POKESD+9,Y+5#FR=1#G0T0742 729 POKESO+14,X1FOMESO+15,Y1POKESD+10,X+121POKESD+11,Y+51FR=01G0T0742 742 X=PEEK(53278)/RETURN 755 POYE53280,14:POKE53281,14:POKE198,0:POKES0+21,0 767 REM CLR-BLK- 6+CRO 768 PRINT JUNELUNE - F & F- 15\T!!" 798 REM 2*CRD 781 PRINT JUNLL THE GUESTS HAVE GONE HOME TO WATCH" 794 PRINT TELLY BECAUSE THEY HAVE BECOME BORED. 807 PRINT WITH YOU TAKING SO LONG TO BLOW OUT ALL* 820 PRINT OF THE CANDLES." 833 PRINT" NOWEVER YOU DID MANAGED TO BLOW GUT"SC 846 PRINT"CANDLES, WHICH ISN'T TOO BAD." 858 REM 3*CRD TRESS ANY KEY FOR A NEW GAME" 859 PRINT "ITTE 872 GETAS: IFAS=""THEN872 885 RUN P98 F08L *01048:CK *0:F088 *0107:PEADA:P0KE16000+(L*8)+8,A:CK=CK+A:NEXT 911 READOUTEDCOCKTHENPRINT*YOU HAVE MADE A MISTAKE IN LINE*(L*13)+1015:STOP 924 NEXTL 937 FORI=0107:READA:PONE53287+1,A:NEXT 950 FORI=0T07:READA:POKE2040+1,A+250:NEXT 963 POKE53271,192:POKE53277,192

0 0 0 0 0 0 0 0 0 0 1 D O th I S S U E jju rolotololololololor prospilotologi o t

COMMODORE 64 PROCEAM

976 FOR1=0T015:READA:POKE53248+1,A:NEXT 988 POKE53269,1:P9KE53264,0:PGKE53285,9:POKE53286,8:POKE53276,2+4+8+64+128 1002 POKE53269,0+2+4+8+16+32+64+128 1015 DATA0,0,0,128,0,0,120,0, 248 1028 DATA0,0,0,0,15,128,0,192, 335 1041 DATA0,0,0,248,0,112,0,0, 360 1054 DATA14,3,240,0,224,0,0,224, 705 1067 DATA31,14,0,0,112,3,240,0, 400 1080 DATA248,0,192,0,0,15,128,0, 583 ที่สารหนัก หลังสารทางการทางการทางการที่สารหนังสารหนังสารที่ส 1093 DATA0,0,0,0,0,0,56,0, 56 1105 DATA0,128,0,0,0,0,0,0,0, 128 it's party time! 1119 DATA0,0,0,0,0,0,0,0,0 1132 QATA0,0,0,0,0,0,0,0,0, 0 1145 DATA0,0,1,64,0,15,80,0, 160 1158 DATA60,80,0,63,80,0,15,208, 506 1171 DATA0,15,192,0,3,0,0,2, 212 1184 DATA0,0,10,128,0,10,128,0, 276 1197 DATA10,128,0,10,128,0,10,128, 414 1210 DATA0,10,128,0,11,128,0,0, 277 1223 DATA0,16,0,0,16,0,0,16, 48 1236 DATA0,0,64,0,0,100,0,0, 184 1243 DATA100,0,1,101,0,1,169,0, 372 1242 DATA5,185,64,5,185,64,6,186, 700 1275 BATA64,6,186,64,6,254,64,6, 650 1298 DATA254,64,6,254,64,6,186,64, 898 1301 DATA5,185,64,1,185,0,1,185, 626 1914 DATA0,1,185,0,0,152,0,0, 333 1327 DATA0,126,0,0,126,0,0,126, 373 1340 DATA0,0,126,0,0,126,0,0, 252 and and and a The state of the second s 1353 DATA126,0,0,126,0,0,126,0, 378 1366 DATA0,126,0,0,126,0,0,126, 378 it's party ti 1379 DATA0,0,126,0,0,126,0,0, 252 1992 DATA126,0,0,126,0,0,126,0, 378 1405 DATA0,126,0,0,126,0,0,126, 378 1418 DATA0,0,126,0,0,126,0,0, 252 J 1 1 1 1 L 1 ' J J L 14R1 CATA0,0,0,0,0,0,0,0,0 24 1444 DATA0,0,0,0,0,0,0,0,0, 0 1457 DATA0,0,0,0,0,0,0,0,0

1470 DATA0,0,0,3,255,192,62,170, 602 1483 DATA188,234,170,171,170,170,170,234, 1507 1496 DATA170,171,190,170,190,171,255,234, 1551 1509 DATA170,170,170,170,170,234,170, 1424 1522 DATA171,62,170,188,3,255,192,0, 1041 1535 DATA11,128,0,10,128,0,10,128, 415 1548 DATA0,10,128,0,2,0,0,2, 142 15F1 DATA0,0,2,0,0,2,0,0, 4 1574 DATA2,0,0,2,0,0.5,64, 73 1587 DATA0,0,0,0,0,0,0,0,0,0,0 1600 DATA0,0,0,0,0,0,0,0,0,0 1613 DATA0,0,0,0,0,0,0,0,0 it's party time 1626 DATA0,0,0,0,0,0,0,0,0 1639 DATA0,0,0,0,0,0,0,0,0 1652 DATA1,6,2,2,4,3,1,1 1665 DATA0,1,5,2,3,3,4,4 1678 DATA0,0,230,128,250,249,103,150 12 1691 DATA102,75,102,175,90,70,90,170 1704 RETURN 1717 END 1730 A&="BIRTHDAY.FIN":OPEN1,8,15,"S0:"+A&:CLOSEI:SAVEA&,B:VERIFYA&,B:END



I can think of three main reasons for buying books of games listings for a particular computer. Firstly, to demonstrate the capabilities of the machine in one way or another. secondly, to pick up useful programming techniques for that computer; thirdly, and not least, to enjoy playing the games after you have keyed them in. With these thoughts in mind. I have been looking at two recent books.

A QL Compendium by Martin Gandoff and Robin Kinge, £7.95 from Addison-Wesley Publishing, was obviously written to satisfy all three of my criteria. The first two chapters are taken up by hints and tips on using the QL and some highlights of Super-BASIC. The time it took to read these was well spent, and I don't recomend skipping this section: for instance, did you know there is a three-key combination which will crash the QL so thoroughly when pressed that only a RESET will restore it to action? The authors' recommendations on keying in programs and making backups are very sound After a useful short program to explore the peculiarities of the QL BEEP instruction, the book continues with an 'art' section which demonstrates many of the QL's graphic capabilities and allows the reader to draw pictures on the screen. The next section is on games of skill, and the one I chose to key in was a variation of Hangman with a guillotine instead of a scaffold. I have to confess to missspelling easy words just to watch the guillotine working! In the 'weapon' games section, I chose Depth Charge, which demands either a joystick or faster reactions than mine; I was confused at first because my ship only appeared after 1 moved it. I enjoyed the game, in

This week, Colin Wilton-Davies looks at books of games listings for the QL. There's good and not so good in his selection

spite of finding lines like:

430 IF INKEYS = """ THEN GO TO 430

when

430 PAUSE

would do the same job. I chose Noughts and Crosses from the 'traditional' section, liked the graphics, but was disappointed when I found I could win every time 1 haven't tried either of the two-user games yet.

I gave the book two out of three for demonstrating, two out of three for educating, and three out of four for amusing -seven out of ten over all

tion told me 1 should be using the book for fun, and that increasing my programming skills and decision-making ability was just a side-effect, so Tim Harinell might disagree with the weighting of my three criteria. Tough.

Tim's version of one of my favourite computer games 15 called Othello, and was a great disappointment. I lost a turn for attempting an illegal move, but won the game because the program's strategy was so poor that I could take all the pieces. The program can only tell if the game is over if all squares are covered — this is not the only way this game can end. There was also a really classic endless loop in the program: print board, if end then print board, if end then print board; delete line 920 to remove this bug. Next I tried Magician's Maze, and Spectrum. The introduc- a nine-room text adventure with

no hazards which was bug-free but dull. Orbit purported to show a planet in orbit around a sun, but in fact this was a better demonstration of quantum leaps. For those misled by advertising hype, a quantum leap is characterised by a move from one orbit to another so abrupt that the object does not traverse the intervening space; it disappears from one orbit and appears in the other

Finally, 1 tried Detective Q, which unaccountably reminds me of some board game, and which I really enjoyed.

The book ends with a number of ideas for computerising existing games, a good bibliography of computer games and a rather irrelevant glossary (who wants to meet COBOL in a games book - or anywhere else, for that matter?). By the way, if anyone can find an example of the use of the SELect On instruction in this book, I'll buy Tim a drink when I meet him. Now to quantify. One out of three for demo, one out of three for education, two out of four for enjoyment, add up to four out of ten. Watch out for better things from Tim Hartnell.

I kept Tim Harinell's QL Games Compendium, £5.95 from Interface Publications, until last, as I was expecting a real treat from this author of somany good books for the ZX81



A numeric keypad will make life easier for most BBC owners. BBC owners. HCW editor Dave Carlos checked the Softlife keypad out and gives you his verdict



heritous users of the BBC will be aware of the problem of entering numbers from the keyboard. The number keys are spread out in a long line and you have to move around a great deal to get from one end to the other.

Softlife has decided there is a better solution, in the form of a numeric keypad, it comprises 16 keys in a four by four arrange ment all contained in a plastic case 5 cm high, 8 cm wide and 15 cm deep. If you open up the case there is more space, filled with air rather than with any working parts, but this size allows you to place the pad at the side of the BBC and have the keys at just the correct height for easy use

The keys are arranged rather like a calculator pad with 0 on the bottom line and the other numbers above in sets of three This is likely to make it very easy for those who use adding machines to adapt to this pad-The extra keys perform functions which are likely to be of use to those wanting fast data entry Incre is an ENTER key, which performs a return, a DELET! key and a DFLETE LINE key that clears everything back to the start of the current line. The others are numerically biased with a minus for negative values, a capital E for exponent values and a full stop for decimal values. Al, told this is a very well. thought out and executed design The keys have a very positive feel and should please most users As with most hardware addons, there is a software component to this product and this is supplied on a chip to fit the BBC sideways ROM system It is easy to install, although I do think that the documentation could have included a diagram and works very well indeed if you pul it into a high priority socket. One of the extra features of this pad is the programmable software which is also continued



PHERALS REVIEW

in the chip. This means that you can make the keys perform any function you need instead of the set functions. This is likely to be of great value to anyone wanting to customise a BBC machine and only have a small number of functions available. I can see

uses for this in schools, hospitals, museums and industry it provides a cheap and simple viewdata system, in a store for example, and the BBC need not be on public view at all The only quibbles I have are

that there is no facility for auto

tepeal keys and the software does like to be very high in a priority system. Both of these are unlikely to deter serious users from what is a good and well designed product, it might even prevent keyboard failure due to over exposure to some games







One of the most powerful set of machine code commands available to the Z80 CPU are those which allow the programmer to copy a block of memory from one location to another. By using just one command, which is only two bytes long, it is possible to copy a block of several kilobytes of memory to another area of RAM

In this article I'll show you how to use these commands. There will be some examples to try on the Spectrum computer, there is no reason why these examples could not be modified to run on another 280 micro, provided appropriate changes are made to memory addresses. The mnemonics of the Z80's four block move commands are LDI, LDIR, LDD and LDDR All commands use the HL and DE register pairs to point to addresses in memory. In general, the value held in the byte whose address is contained in the HL register is copied to the byte whose address is in the DE register. The shorthand used for this is (HL) - (DE). This feature is common to all four commands, but each command does something slightly different having carried out this basic copy procedure. LDI: After (HL) - (DE), the values in HL and DE are incremented (e.g. HL = HL + 1), and the value in BC is decremented (1 e. BC + BC-1).LDD: After the byte copy, ail the values in HL, DE, and BC are decremented.

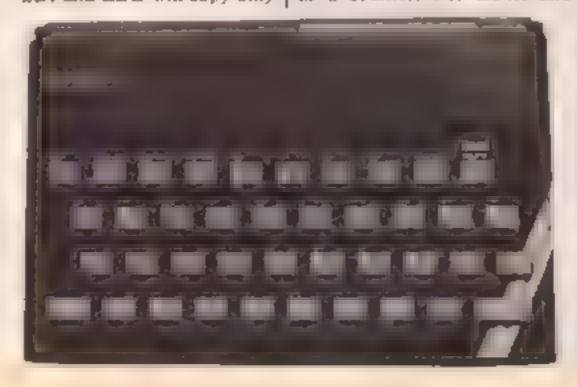
David Nowotnik shows you how to copy blocks of memory from one place to another. You can modify his instructions to run on any 280 machine

25000		the second se	Comments
	LD HL,16384	33,0,64	Display file start
	1 D DE.25200	17,112,98	Save file start
	1 D 8C.6912	1.0.27	No. of bytes to move
	1 DIR	237.176	Move them and
	RET	201	return to BASIC
25012	LD HL .25200	33,112,98	Saved file start
	1.D DE, 16384	17,0.64	Display file start
	1 D BC .6912	1.0,27	No of bytes to move
	I DIR	237.176	Move them and
	RET	201	return to BASIC
epeated alue of LDDR operation	hat the opera until BC ho zero. 2: Like LDD, 5 is repeated u 2: value of zero	but the minul BC n	ne byte value at a time, where- s LDIR (LoaD Increment Re- cat) and LDDR (LoaD Decre- tent Repeat) will move a large umber of byte values. In all ases the register pair BC is used

LDDR, BC is used automatically as a counter, as the command will not stop until BC equals zero. In the case of LDI and LDD, you would use these commands in a loop, with appropriate commands to measure the value in BC, and loop back if not zero.

To use any of these commands, you would first load the destred values into HL, DE and BC, then use the appropriate block load command. For LDI and LDIR, the start addresses of the source and destination blocks are loaded into HL and DE, respectively. For LDD and LDDR, the corresponding end addresses are placed in these registers. If the block move is straight. forward, that is, simply copy a block of values from one location to another, then the Repeat instructions should be used. If the block move is more complex, e.g. if you want to move a block until a certain byte value is found, then you should opt for the single byte copy commands, with appropriate check routines. If there is no overlap between the block of bytes being copied. and those to which the block is being moved, then there is no reason why either LDDR or LDIR should be used. However, if the source and destination blocks do overlap, then the correct choice of LDIR or LODR is vital to ensure no errors in transfer. Figure 1 shows which command is appropriate, depending where the overlap exists.

LDIR: This is like LDI,



SPECTRUM PROCEASIMING

you shouldn't use this effect yourself, and the following . example shows you how

in Table 1 you'll find the assembly language listing and basic machine code loader of two block move routines. The first stores the display and attribute files in an area of RAM, while the second reverses scene, for example. These use the operation

You may have noticed that in

most arcade games on the

Spectrum you get instant

changes of screen display ----

from the instructions to the first

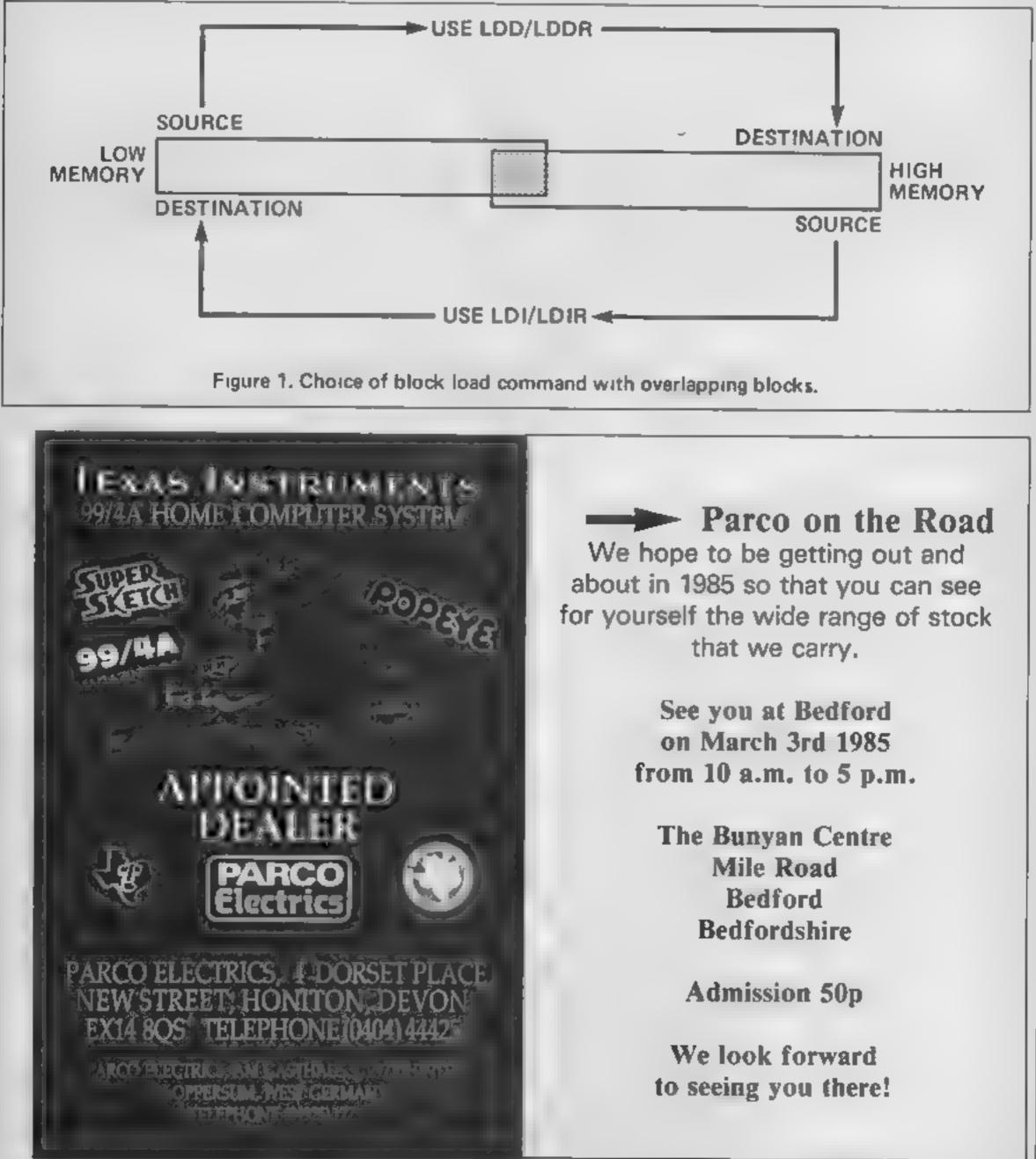
the Z80 machine code block

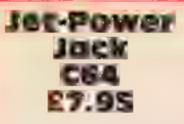
Type in the BASIC loader

the program, list the program. then call the first machine code toutine with the direct command - RANDOMIZE USR 25000. Clear the screen with CLS, then copy the saved block back to the screen with the command RANDOMIZE USR 25012. The listing (the saved display) should be instantly returned to the screen. You can save and moves. There is no reason why and SAVE it. After RUNning return any display you want by

this method

The routine is designed to run on both 16 and 48K Spectrums. You'll find there isn't much space for a BASIC program if you want to expand my loader routine. If you have a 48k Spectrum, you can move the machine code routine and the storage area up in RAM, with appropriate changes to the CLEAR command, the USR and storage area start addesses.





Micro Power, Sheepscar Hse, 15 Sheepscar St South, Leeds LS7 IAD

There are plenty of games to the high standard I have come around where you have to jump your character from one platform to another across the screen. What is different about this one is that Jack can not only jump, but also fly with the help of his turbopak.

This means the platforms can be much further spart than is usually the case, and at the higher levels some very tricky manoeuvring is needed to get from one to the next.

There are five levels, and at each level you have to guide Jack from one side of the space garage

in which he has been imprisoned to the other and back again five times, to collect fuel pods for his starship. You can choose to start at any level, a nice feature, but it is advisable to master the early levels before attempting the later ODCS.

The graphics and sound are up to expect of Commodore games, though not in any way exceptional. The game, though not conspicuously original, is a very good one of it's type, and great fun to play. MN.

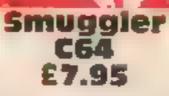
instructions	
płayability	
graphics	
value for money	

80 %

85%

80%

80%



Superior, Dept C, Ground Floor, penguins, I'm still trying to work Regent Hse, Skinner La, Leeds

From the illustration on the packaging I assumed I was going to have fun sneaking barrels from ship to shore under the everwatchful eyes of the coastguard. Well, I was mistaken: this is just another variant on the theme of moving platforms, vanishing may wish to buy it, however, as steps and adversaries

You must catch the barrels as they fall from the ship, negotiate the obstacles, get to the top of the screen and throw the barrels back on to the ship. The number of barrels you must put back varies from screen to screen, and is displayed at the top of the picture

To add to the sillness your adversaries are kangaroos and

this out; there must be some significance, but it's got me beaten

There's a demo-screen which will run through all the available screens and the author has included the usual muste while you play

If this is your type of game you far as 1 can see, nothing unusual ΜЧ.

70%
70%
60%
60%

Big Ben C64 67.00

Interceptor, Lindon Hse, The Green, Tadley, Hants

Giz has been trapped by Jem the evil wizard, and has to collect thirty gold coins to open the tunnel leading to Big Ben's bell so he can ring the bell and free humself. He can travel around to collect the courts on foot or in a turbo plane. The plane is faster. but he has to get out of the plane, to pick the coins up and the landing pads aren't easy to Identify

This is a variant on the platform type of game. There are platforms, moving staurcases, chains to climb and other assorted obstacles. There are also detonators dotted around, and standing on one of these causes Giz to jump upwards, so if you' want to stay on a particuarl level you have to jump over they detonators, a reversal of theusual situation where you jump; 4 to change levels Collecting the first few coins is comparatively easy, but it gets harder. Collecting all 30 will take a lot of practise. It's an attractive and entertaining game and, though not startlingly original," it's worth looking twice at. M.N. -

Jack and Ben

Sample these new arcade games featuring Jet-Power Jack and Big Ben

Mutant Monty Amstrait **CPC464** £8.95

Amsoft, 169 Kings Rd, Brentwood, Essex

stumping graphics and a multiludinous array of screeps provide a colourful display three granting the entire duration of his amazingly clever game.

Guiding Monty by using eithe the keyboard or a joystick through a complex variety of fast moving hozards is a challenge indeed

I found it difficult to stop playing the game long enough te write this review, which serves to emphasise just how compulsive it can become

Lightening fast reactions are essential in trying to avoid awful nasties like the Porollehans and the rarer Quantum Leaples Having secured all the gold, Monty then has to rescue B. maiden in distress. Although desperate to see just what the, distress looks like (1), and not having reached that part of the game yet, I can't comment on it There is no reason to believe the graphics will be any less, appealing, than all the other pages shown on the demonstration sequence Played against the clock for bonus points your five lives are at risk. Trying to beat the clock eads to inevitable errors that a more cautious approach might well have avoided Alternatively, caution takes time! DH.

80% instructions 80% playability 75% graphics 75% value for money

Henry's House C64 EB.95

English Software, Box 43, Manchester M60 3AD

This arcade game loaded easily the music passable and quickly and then went photographed and reproduced sufficient originality to make it an idea of what to expect.

Prince Henry around his royal household exploring and investigating every corner. It is a instructions ladders and levels game, but not ease of use straightforward. Each screen is graphics different, set in another room, value for money and for each new room a new strategy must be discovered.

The instructions do not explain any of the strategies, but give lunts as to which article in the room is important as far as

gaining access to the next room is involved

Overall this is a good game with increasingly difficult levels The graphics are well done and

Using the birth of Price Hal to through a demonstration mode sell a computer program is These screens have been questionable, but the game has on the cassette inlay so you get a best seller. I have just one query. Why is Prince Henry The aim is to guide young wearing an Arthur Scargill hat? M.W.

75%

70%

85%

80%

instructions	100%
playability	100%
graphics	100 %
value for money	80%

SPECTRU

FIC YOU G W

Here he two programs to ge yeu to the par y spirit.

Fogram one draw a both day uske with skering can also and asky you to press any key and haw Once you've do pe thus, the comments go and when more we drawn at the shape of J(N), its imposited by the song LEPPY BUILDAY IN YOU

Pitter all two is and otherstat ticle game to test your speed at count up 3 have shown a brack gluopse or i pac o presents detti st unike with a hid an er t

I ch you re asy d how many presents She or Perc had a co how old ley are negling by he mather of vendory

Program one How It works

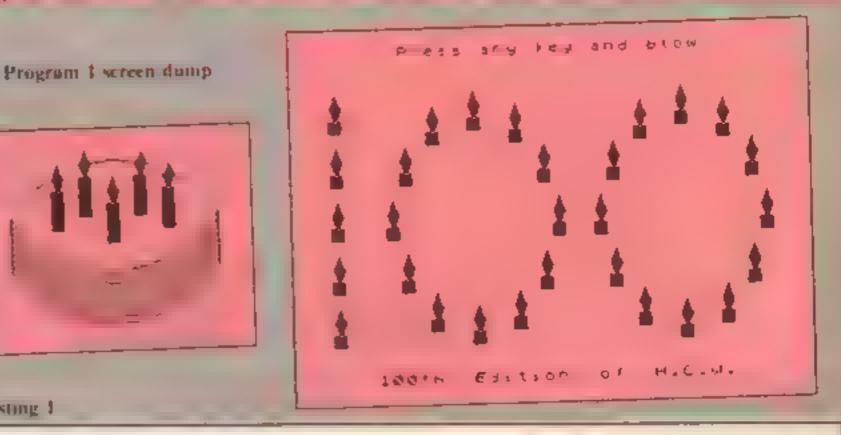
5.6 graph s 8-15 set up arcays 20-50 draw cake and candles 60-80 animate condle flame 90-110 Parac gates of it 500-530 card carspay 1080-1118 happy b rthday tune

I isting 1

Variables

candles

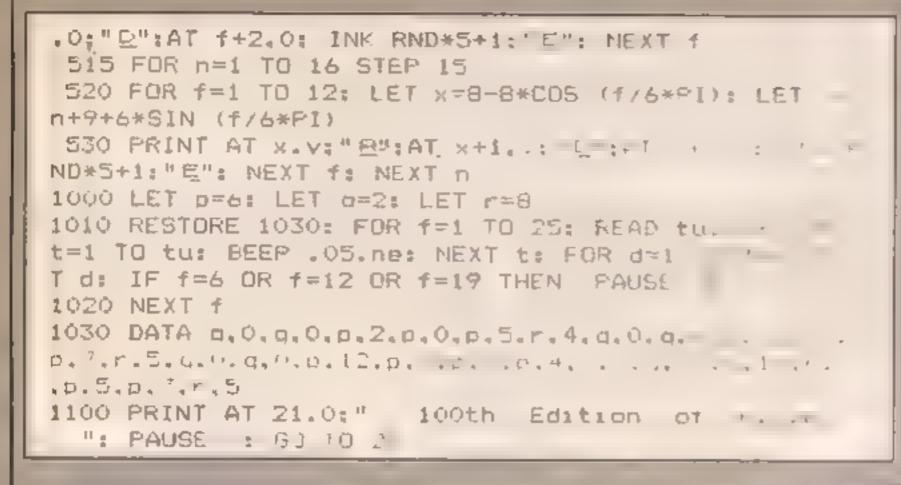
- flicker
- oval shape



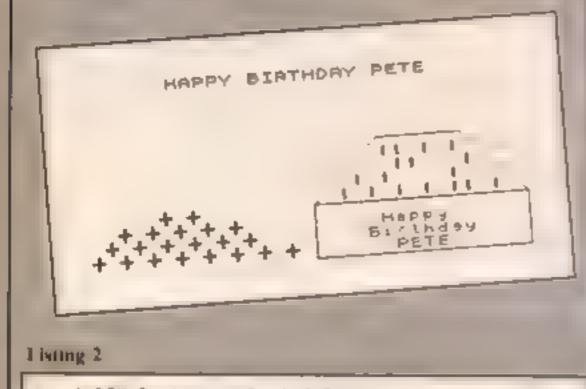
OPREM 100 Editions of H.C.W. By And and message rew Bird 5 FOR f=USR "a" TO USR "e"+7: READ a: PDKE f.a: Program two NEXT 1 Dim c, Dim a co-ordinates for 6 DATA 8,8,24,28,28,60,62,120,11,2,11,11,10,10, 1,63,2,2,6,14,14.11.11.61.1.4.0.7,127.cl.,61.51.51. w sciects candle to have flame 28.227.255.255.255.255.255. ** . . ** x,y used to position candles in 8 DIM c(5): DIM a(5) n used to draw two oval shapes 10 FOR f=1 TO 5: LET a(f = r+f*l: NEX turne used to read musical data. 15 LET c(1) 4: LET c/1) - : LET c 1. 1: LET c 4) t number of times note is played p.q.r length of pele 1: LET C = 1-4 f genera purpose loop D BORDER Q: PAPER Q: INK 5: BRIGHT 1: CLS. d de ay loop T PLOT 64.112: DRAW 0,-32: DRAW 120.0.2: DRAW 0 .T2: DRAW -120.0.2: IRAW 11 .0.1 Program (wo How it works IT FOR 1=80 TO 110 STEP 4: INK (1-63)/10: PLOT 6 10-110 dimension, set ap arrays 4. f: DRAW 120.0. 1: NEXT f 120-140 set up random numbers 160-180 Instructions A THE OF FOR T 1 TO S: PRIME HT OFF . ANTE: A PER 190-320 draws game T c(f)+1,a(f);"Q":AT c(f)+2.a(f); INF 1: :HI (f) 340-500 asks question, checks auswer ні, з биз 🇱 зыб с б ня, а б зліщ з МЕХТ т 9000-9010 graphics FRINT AT 21.0:" Press any key and blow - F -Program (wo 60 LET w≃INT (RND*5+1) Variables 70 PRINT AT c(w).a(w):CHR\$ -(144+INT (RND*3-Dim p, Dim r present co-ordiaates 80 IF INPEYS="" THEN 60 TO 60 Dim ca, Dim d candle co-90 PRINT AT 21.0:" ordinates Dim nS names da, ta used to read data pr number of presents displayed 100 FOR d=1 TO 150: NEXT d: FIE # 1 T f: I T H cs number of candles displayed T c(f).a(f):" ":AT c(f)+1.a(f):" : ! *T * ne name displayed 110 FOR d=1 TO 600: NEXT d: CLS ан уоыг альмег f general purpose loop 500 FEE foo 70 16 STLF 4: 581 4 - 1. :"H":HE 1+1 d de av loop

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PROGRAM



Program 2 screen dump



0 REM Birthdavs By A.G.Bird. 5 RANDOMIZE : GD SUB 9000 8 BORDER 0: PAPER 0: INK 6: BRIGHT 1: CLS 10 DIM p(36): DIM r(36) 20 DIM c(33): DIM a(33)

(DA):" S"' "PRESENTS AND CARE AND WILL THEN""""BE ASHED AN OBSERVATION QUESTION" 180 FOR d#1 TQ 900: NEXT d 190 FOR d#1 TQ 10: NEXT d

10000 00

reasela

WY WWWWWWWWWWWWWWWW

20 D14 C(33)1 D14 B(33)	TO FOR THE TO THE PRINT AT THE
30 DIM hs(10.4)	"; NEXT 1
40 RESTORE 50: FOR ##1 TO 3o: PEMD da.ta: _5" a	200 PLOT 130.46: DRAW 38.38: DRAW 48.0: DRAW 38
f)=da: LET r(f)=ta: NEXT f	38: DRAW -124.0: DRAW 0,-32: DRAW 424.0: DRAW 0.32
50 DATA 19.6, 19.8, 19.4, 19, 10, 18, 5, 18, 7, 19, 2, 18, 9	210 PRINT AT 17.21: "Happy": AT 19.20: "Birthday": AT
.17.6.18.3.19.12.18.11.17.10.19.0.18.1.17.8.16.7.1	19,10.m\$rma
7,2	300 FOR 1=1 TO or: PRINT AT D(f).r(f); PAPER INT
60 DATA 17.4.19.14.16.5.15.6.18.13.16.9.17.12.16	(RND+3)+4: INK INT (RND+4):" E": NEXT f
.3.15.4.16.11.15.8.14.5.14.7.15.10.14.9.13.6.13.8.	510 FOR fel TO car PRINT AT c(f), a(f); INK 5:" A":
7	NEXT +
70 RESTORE 80: FOR f=1 TO 20: READ data: LET ct	320 FOR d=1 TO 900: NEXT d: CLS
f)=da: LET a(f)=ta: NExT f	340 IF RND>.5 THEN GO TO 400
80 DATA 13.23.14.26.14.21.12.21.12.26.15.24.15.1	350 PRINT AT 9.0: "HOW MANY PRESENTS DID ": n# (na) ;
8.15.29.12.24.15.27	" HAVE"": INPUT an
90 DATA 14.19,13.22,15.26,13.27,15.20,15.22,12.2	360 IF AREDT THEN GO TO 500
2.12.25.13.26.13.21.14.24.15.28.15.25.14.27.15.19.	370 PRINT AT 15,13;"NO ":DEEP 2,0: CLS
15.23.14.25	400 PRINT AT 9.9: "HOW OLD 15 "ins(na);" 7 ": INPU
100 RESTORE 110: FOR #=1 TO 10: READ as: LET ns()	T an
)=a9: NEXT f	410 IF an=ca THEN GO TO SOO
110 DATA "BOB". "SUE". "TOM". "KEN". "JILL". "MARY". "A	420 PRINT AT 15,14: "NO ":ca: BEEP 1.0: RUN
NDY", "PETE", "DAVE", "MIRE"	500 PRINT AT 15.13: "CORRECT": FOR 1=30 TO 60: BEE
120 LET pr=INT (RND+27)+10	P.OS.f: NEXT f: RUN
130 LET ca=II(T (RND+15)+6	9000 RESTORE 9010: FOR g=USR "a" TO USR "b"+71 REA
140 LET na=INT (RND+10)+1	D r: POPE g.r: NEXT g: RETURN
160 PRINT AT 6.6: "HAPPY BIRTHDAY ":n\$ (Ra)	9010 DATA 0.24.24.24.24.24.24.0.24.24.24.24.25.25.2
	4.24.24
170 PRINT AT 10.0: "YOU ARE ABOUT TO BE SHOWN ":n\$	

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Hisoft Pascal 4T Amstrad CPC464 E34.95

Amsoft, 169 Kings Rd, Brentwood, Essex

This implementation of Pascal is supplied on cassette and is accompanied by a handbook

The book is primarily an insight into the features particular to this version of the language. Like most other computer languages there are numerous dialects and the handbook does not set out to teach you the language.

Separately available is the Tutorial Guide to HiSoft Pascal, devoted to teaching this version of Pasca.

Loaded by pressing ctrl/ enter, the cassette writes the Pascal as a resident foreground RAM program

From here on all access to the computer is throuugh the new language, until a reset is

One for the Amstrad, to improve the capabilities of you and your micro

solsicoii

ctrl/enter. Your program is then RUN with all the speed and security of a professional program!

The Pascal language is decidedly more difficult to master than BASIC, especially for newcomers to computing Nevertheless, experienced computer linguists will find Pascal an exciting and worthwhile addition, ideally suited to a wide range of applications

Routines are defined as Functions and Procedures that are either user defined or predefined within the language, hke READ and WRITE, the main Input and Output Procedures

Herein lies the major strength of Pascal. Think of it as a vast extension to the BASIC command DEF, and the powerful composition of a Pascal program becomes apparent

The program is built in blocks, each one able to access others which again can call further blocks. The main control program designates the sequence in which the other Functions and Procedures have to be accessed

It follows therefore that



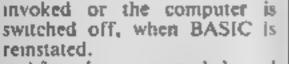
programs have to be designed from the top down. With the main control part being written first, all the Functions and Procedures can be written later. This makes for comparatively simple program design.

Accompanying the Pascal language program is a HiSoft Turtle Graphics program on the same casselle

The Turtle is loaded using ctr/enter whilst the Pascal program is resident. A short and ludicrously inadequate demonstration program is included. Removal of this demo releases space for the example astings to be typed into RAM. There is nothing to enthuse about here either.

With only a few command words to understand and a clear explanation of each in the handbook, writing worthwhile programs is the next step after mastering Pascal.

incidentally a listing of the resident Turtle Procedures can be sent to either a the Monitor or to a Printer, where all will be revealed. An analysis of the numerous user calls is contained in The Complete Firmware



After being compiled and translated (both options at the press of a key), your complete program can be saved to cassette in machine code.

More excitingly, after returning to the BASIC start-up screen, the machine code program can be loaded with Manual (Soft 158). Experienced programmers looking for another language will find plenty of power in this pricey package. D.H.

instructions 90% case of use 100% value for money 90%

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CARL CONTRACTOR CONTRACTOR

MSX PROGRAM

When I began play ag with nivnew Sanyo MSX compater (MPC 100) one of the first things to impress me was the quality of sound which could be generated

There are three MSX BASIC statements for generating sounds, BFEP, PLAY and SOUND The first two are comparatively easy to use, but the SOUND statement is rather complex so much so that he nation of the Sanyo MSX BASIC programming manual has made senic in stakes in the sector of centry with it

It you key in the following program, you will find it much collect to experiment with SOUND statements. When you have generated a solaid you like make a note of the values displayed on the screen for use later on in your own programs.

How it works

The sounds in MSX machines are generated by the AY-3-8912 PSG chip (PSG stands for Programmable Sound Generator). These sounds are controlled by entering numbers into the 14 registers of this chip, which are numbered from 0 to 13.

Lines 40 to 70 initialise the program by setting up two arrays; one of these holds the contents of the 14 registers; the other holds the maximum values for each register which affect the performance of the PSG.

Lines 80 to 130 display the current states of the registers and their functions on the screen

1.6 0.30 0

To mark our 100th birthday, we're pleased to present our first ever MSX program. It's a sound editor by Colin Wilton-Davis, and there's full explanations, too

_		and the second s
•	The Press	
	v tro Da es	
	- 1995	
40	02M ## 131'0H(13	
= 4	f - h 0 = 23	
e *	PEAD SH C	
J.	File = T C	
52	r.	
40	TRIPPT TRAN LTAB SHE MA STAR SP & CONCE CE	
144	FOR 6-0 10 13	
110	PRINT SITAR S ISPICILIAR SPIESBICH	
ø	On CAL CLOUD 3"9,380 340,408 418 428 430,448,458,468,4 8 4	
	904 ~90	
57	HE TO PRIST POWER	
i da	6474 .55 15	
	DatA 77 .5	
	R474 755 S	
	tura t	
	1414 5	
	2A 4 6 6	
	64 A	

When you run the program, these start at all zeroes, and surprise, surprise, no sounds come out. You must start the ball rolling'

The variable C is just used as a pointer to the register that is currently being changed.

Using the program

The sounds produced by the MSX machines come out of your TV set, so don't forget to turn the volume up above zero (but not too far!) before you wonder why nothing is happening Before you start the program (or any other new program) by keying RUN, you should save it on cassette by keying CSAVE 'edson', switching the recorder to 'Record' and pressing the ENTER key on the MSX.

Now key RUN and press the ENTER key; on the Sanyo MPC-100 you can just press the F5 key to do this. The screen should display a table of information about the PSG register contents, but you won't hear anything until you alter some of the registers.

I'll leave register 7 until next to last, otherwise we can look at them in numerical order. The first three pairs (0 to 5) control frequencies on the three channels A. B and C — yes, you can produce three-note chords if you like. The second of each pair gives coarse control of frequency, the first gives fine control. Low numbers in these registers give high notes, and vice versa

Register 6 does the same thing for the white noise generator. Registers 8 to 10 control volumes on the three output channels: high numbers give high volumes, with a number of 16 giving control of volume to the envelope registers. Registers 11 and 12 are fine and coarse controls for the timing of one 'envelope cycle' with high numbers giving long times (slow). Register 13 selects the shape of the 'envelope', which is just the way the volume varies with time - see the diagram. Register 7 is a switching register which controls all your outputs; perhaps strangely, when a bit is set (1), it switches OFF and vice versa. In this program, the initial state is zero, so everything is ON. The Least Significant Bit (Bit 0) controls tone output to channel A, so to switch OFF the tone output on channel A, add I to the contents of this register I'll leave register 7 until next to last, otherwise we can look at them in numerical order. The first three pairs (0 to 5) control frequencies on the three channels

Lines 140 to 210 are data statements specifying the maximum values to be entered into each register

Line 230 generates the resulting sound

Lines 260 to 360 accept keyboard input to allow you to repeat the sound or change the contents of any register and thus alter the sound

Lines 370 to 500 are one-line subroutines to give a brief description of each register's function.

Variables The array SM holds the maximum values which may be input to each register. You won't have to worry about these in your own programs; you can make SOUND statements puting 255 into each register without crashing the program, but numbers above the maxima merely repeat the effects of numbers below them

The array SR holds the current values of the 14 PSG registers.

	ard 65, 0
	1 in 0 10 13
ы	S-DUPE C PR C
	α <u>τ</u> τ
4.7	PRINT PA C PREST TA FALLE
15	Langent a te rarez tetto - 0
19 Ø	TH BY DE FE R THE
- 6	F F B ALCONE STOLE S
20	rident = 30 By 1 ft at 10 1
* *	I C 4 C THEFPELT R. J. 700
	PRIF Lande Register ut from (SALu
2	Lines r ro
+2	TE O TE SM & THEN ERENT NO JULO 328
5.0	SA C -
96	0076 BC
¢*	PRINT TABLES CTCHA A Pring FEINER' RELIAN
6.8	PPTHT TABLISTITCAEN & Freq topareett RETURN
98	PRINT TAB 1911" has & Fred fine RETURN
aa	PRINT TAB 10 L'Chan & Freq. Coarde * RETURN
10	PRINT TAB 15 Studen C Freq (ine) * RETURN

A. B and C - yes, you can produce three-note chords if you like. The second of each pair gives coarse control of frequency, the first gives fine control. Low numbers in these registers give high notes, and vice versa.

Register 6 does the same thing on the three output channels; high numbers give high volumes. with a number of 16 giving control of volume to the envelope registers. Registers 11 and 12 are fine and coarse controls for the timing of one 'envelope cycle' with high numbers giving long times (slow). Register 13 selects the shape of the 'envelope', which is just the way the volume varies with time — see the diagram.

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MSX PROGRAM

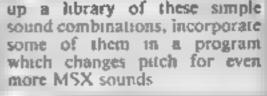
TABFIDISTCHAN C Fred (coerse)*:RETURN PRINT TABLISISTNOLDO PrograRETURN PRINT TABISTI "Select Hosse/tone Chan'SPETURE PRILL TAT 15 THAT A DIT FET RN ewant the at CAAN B VOI PETURN HAPPY 100TH PRINT TABLES) ("ENAN & VOL" RETURN PRIMT TARABLE TEAM FOR 194 相關的 PRINT TABLES! | "Env. Period - Con to REFORM. 电空间 PRINT TABLISISTERS SHAPPINE TURN

Next up, Bit I controls tone out on channel B, and Bit 2 controls tone out on channel C. Bits 3 to 5 control white noise out on channels A, B and C. You can do interesting things in your programs by setting up different sounds on each channel, then switching them on and off independently with this register 7. Adding 16 to the register contents switches off white noise on channel B (if it was on!). To switch off white noise altogether, set register 7 to 56.

Now let's make some noiset. Chane R8 (short for register 8) to 4 and RI to 4. Result is a buzzing. Now change R7 to 56, switching off the white noise, and a type takes it's place Change R7 to 63 and silence; back to 56 and the tone reappears. Now change R3 to 2

and R9 to 8, this superimposes a louder, higher tone on your existing lower tone. You must be getting the hang of this now, so play around Just a few interesting combinations to start you off (unmentioned registers to zero).

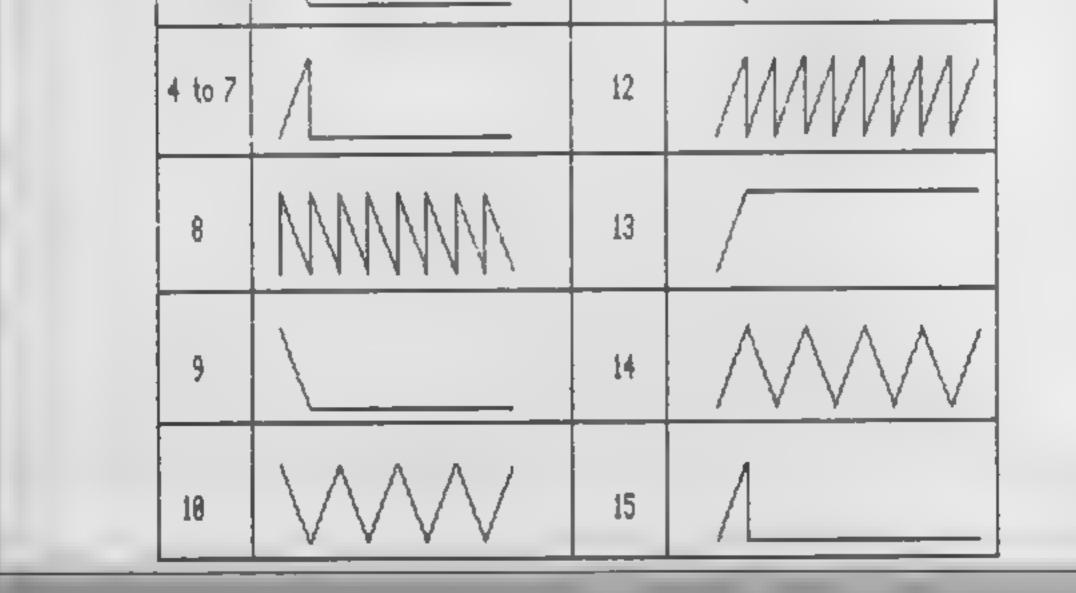
RI=1, R7=56, R8=16 R12=1 and R13 14 Now play with R12 and 13 to fam, tarise yourself with the different envelopes. R6=31, R7=55. R8=16, R12=4 and R13=8 gives a steam train in a hurry now change R7 to 53, R9 to 12 and R2 to 200 to make the whistle blow Varying R7 between 55 and 53 switches the whistle on and off without stopping the engine neise Varying R12 will make the train change speed. I'm sure your imagination will take you on from here. Once you have built



BIRTH DAY FROM

QUEEN ELIZABETH

MSX SOUND Envelope Control (Register 13) Envelope Shape Data I Envelope Shape Data 11 0 to 3



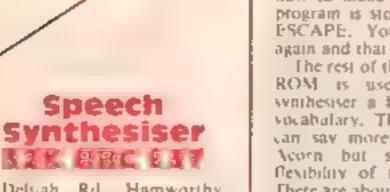
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PERIPHERALS REVIEW

quite acceptable too

Overall this unit is well designed, simple and easy o use The ers i pass manata is cond but unaid have been be ter Generate

I found myself searching all over for the information I needed it is a little overpriced when compared with the Currah unst but much simpler and easier to use so this might be justified D.C.



7 Delitah Rd, Hamworthy, Poole, Dorset BH15 4NR

The Metron Audio speech

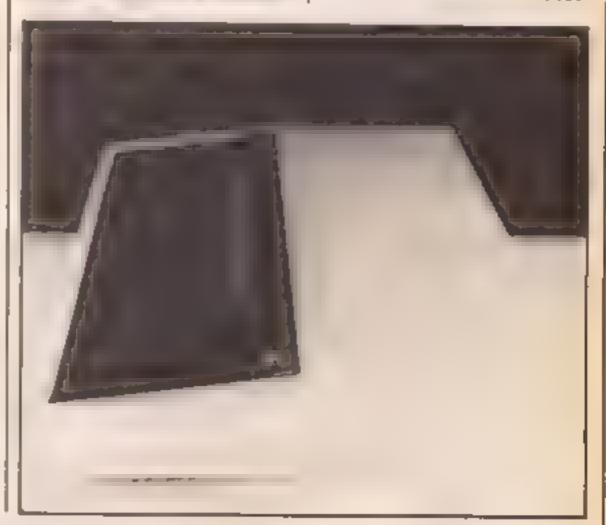
The synthesis of speech is a tasematics area for the home computer user to explore. The BBC machine was aways designed to have the possibility of speech output and herefore. provision was made on the roam. board for the chips which are recated. Acorp's own speech www.em has, by far, the best quality of speech that I have heard. The problem is that this system has only a limited number of words and to get any more you have to resort to machine. code

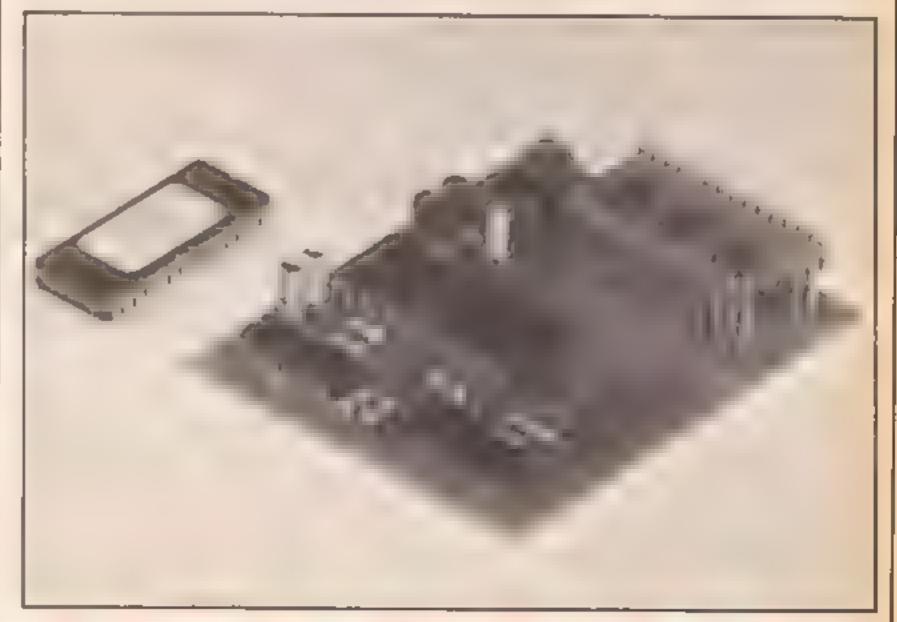
This system doesn't suffer from any of these problems and Like the Corran unit, which it resembles adwardly, it uses afformates to create speed I have an ophones are the netual senads we use to make up our witten that there is a separate altophone for each of these speech components, so there is one for the 'a' in 'bay' and another for the 'a' in 'act', 8y , imbring these you should be able o make the machine say anything you want What is different about this product is its simplicity of use There are just two components to be fitted to the BBC itself a chip in the sideways ROM socket and the synthesiser circuit on the **BBC's main board.** The manual contains very simple instructions which make fitting a two-minute task in the ROM there are the driver routines which make it so

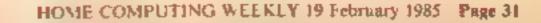
memore audio speech netron Audio proved cou proved con the sise as y to set is the synthabity e carand it remark bar does and it remark bar does and it sample to use. Typing *SAY -0 and the speech flows on. One dem that isn't in the manual is how to make it shut up if the program is slopped by pressing ESCAPE. You type "SAY -0 again and that does the trick

> The rest of the space in the 8k ROM is used to give the synthesiser a large whole word vocabulary. This means that if can say more words than the Ycorn but still retains the flexibility of the Currah unit There are about 700 words in the ROM and most are very clear. and easy to understand Each word can also be price a pitch. self ig and this nearly faily id cast save a mult some or a lower. one We lea to this setting 2 was he clearest but the others were

TRFOW







Today is HCW's birthday, and the Editor, bless his cotton socks, has purchased some extremely expensive presents for all the office staff. Unfortunately, due to a fit of absentmindedness, he's lost them all. Fearing industrial action from the HCW girls he decides to call in the one man inthe universe who could possibly save the day — Dauntless Dave.

Turn the office upside down to find the mislaid birthdis bresents. The star of this presents period birthis

game by Jon Revis is Dauntless

Dave and he's not got long

to locate these missing gifts!

As the game begins you are shown a floor plan of the HCW offices. Somewhere in these offices he the presents. Using his amazing powers of ESP, Dave pinpoints one of the presents and the office in which

Variables

the multi-purpose counter M% multi-purpose counter N% multi-purpose counter

- FLAG% indicates whether a key has been pressed
- G used with GET to check for space bar
- NOW used in conjunction with TIME to determine length of time taken to collect a present; for awarding a bonas

base % used with the offset value (sq%) to indicate the number of items of DATA to be READ number of corners count% visited by Dave char% counter used when constructing a character corner X%, corner Y% variables into which the corner co-ordinates of the present square are READ col% colour in which square is to be filled

it is hidden begins to flash

Moving swiftly to the office Dave, complete with scissors and sellotape, takes a look in each of the four corners, and then the present miraculously appears.

The game is a race against time, and bonuses can be obtained should you find a present soon after the room begins to flash. Time bonuses are indicated by a loud whistle.

When Dave's time is up the screen clears and the number of presents collected is displayed Dave is guided around the screen using the following keys: Z left; X right; : up and / down

manX%,manY% current co-		
ordinates of man		
man% used in FNcheck_pos		
to find grid intersections		
oldmanX%,oldmanY% old co-		
ordinates of man, used for		
wiping the old image		
present% number of presents		
collected		
square% flag which indicates		
whether a flashing square is		
present upon the grid		
aS temporary string		
have for hadde the shows star for the		

bows holds the character for the l bow manS holds the character Dave C%(4) array used to signal whether a corner has been visited by Dave SO(16) array used to indicate whether an office has been changed into a present. When holding a value of 1 the square is a present cornerX%(4),cornerY%(4) hold the co-ordinates of the square currently being checked for

Procedures and functions

330 DFF PROCcharacters repeatedly calls PROCdefine___ character(Z%) specifying the number of items of DATA to be READ. Finally it assigns the characters created to their correct variable names.

400 DFF PROC define__character(Z%) creates the multicoloured user defined characters using a string concatenation. technique

530 DFF PROCchars contains all the VDU23 character defini-110.05.

730 DEF PROCgrid draws the gnd representing the HCW offices

880 DEF PROCread_keyboard is the engine room of the whole program. The keyboard is scanned for any key depressions. FNcheck_pos is then called to check whether Dave is standing on a horizontal hne, vertical line, or an intersection Finally, depending upon the results of FNcheck_pos, the character's co-ordinates are incremented in the correct

direction. Another important feature of the PROC is the variable FLAG%; if no key has been pressed the value of FLAG[®] will be zero, so the program will not bother printing the character again as he has not been asked to move

1020 DEF PROCodat man when using exclusive OR printing as we are doing in this case, one can erase the old image of a character by printing the same character on top of itself. This is much less destructive than using the old wipe string technique, where the old image of the character is erased using a square character of the same colour as the background.

BRC/ELECT

To use this technique for Dauntless Dave it would be necessary to re-draw the grid each time the character Dave was moved. This is because the wipe character would erase both Dave and the lines of the grid over which he was moving

Dave is reprinted at the coordinates manX%,manY%. These values are then passed to oldmanX% and oldmanY% for use the next time around.

1100 DEF PROCinit here we dimension all the arrays to be used, and also set all the variables to their initial values.

1270 DEF FNcheck__postman %) is the part which ensures that Dave walks around the walls only and doesn't go tearing across the middle of an office. To make the calculations easier, the grid around which he moves is drawn along co-



N PROGRAM



ordinates of whole hundreds. e g, the vertical lines are drawn at 100,300,500,700,900 respectively

Dave is therefore only allowed to move vertically if his manY% co-ordinate corresponds to one of these numbers. FNebeck_pos ensures that Dave is stood at a co-ordinate which is a whole hundred, and also that it is an odd whole hundred before allowing him to travel vertically.

The odd whole hundred part is important, otherwise he could walk up the middle of an office as they are 200 screen coordinates wide

FNcheck_pos also does this for the horizontal co-ordinates - what a busy little FN it is Should all the conditions be fulfilled, the FN returns a value of TRUE and Dave's coordinates are incremented in the correct direction

has been used before. This is done by examining the array SO(N%). If an element contains a zero, then that particular square has not been used before. Having chosen a blank square, the number of this square is passed to the PROCsquare_coords.

1400 DEF PROCsquare_coords using the value passed from PROCselect_square, we RESTORE to the line of the program which contains the DATA statement holding the corner co-ordinates of the selected square. These coord nates are held in the arrays. corner Xº and corner Yoo, only holding the co-ordinates for the office that is flashing two four-element arrays are sufficient. Should we decide that the co-ordinates would all be READ into one large array at the beginning of the program, we would need two 64-element arrays. This represents one huge chunk of memory and may cause the familiar NO ROOM message to

which it is to be filled at the same time.

1510 DEF PROCIfil_square (col%) the main task of this procedure is to fill the square selected in the correct foreground colour. The colour variable col% performs two tasks in this procedure: it's main one is determining the colour of the square, but it also indicates to the PROC whether the square has been changed mio a present or not

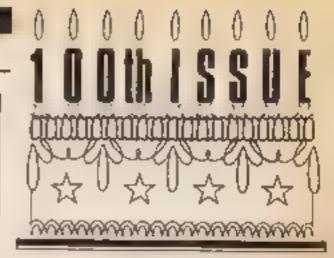
If it is called with a col^me value of 8 then it is a flashing black and white room, if it is called with a col% value of anything else, then the square is filled with cyan and a bow 15 printed in the middle.

The flag variable square% is reset to zero at this point, allowing PROCselect_square to be called from the main loop, and setting up another flashing black and white office.

1640 DFF PROCcheck_corner compares manX% and manY% against each of the corner coordinates of the flashing square. Should Dave's coordinates be identical to any of the four corners, then this is registered by placing a value of l into the corresponding element of the array C%.

Finally the variable count % is incremented by one. When this variable reaches four, each of the four corners will have been visited and we can call PROCfill_square with a value other than eight.

The TIME at which count % reaches a value of four is used. in conjunction with the value of TIME when the square was first selected in PROCselect_souare



bonus. Having drawn the present with PROCfill_square we can now increase our tally of presents by one.

1370 DEF PROChackground draws a pretty border of Daves around the screen at both the beginning and the end of the program,

1870 DEF PROCend having used PROCbackground, we insert the appropriate text and your score

2040 DEF PROCtitle similar to PROCend, but this time we display the program title and a brief explanation of the game.

i tried to speed up the execution of the program by replacing many of the variables by resident integer variables. However, the increase in speed was so minimal that I decided that the more informative long variable names should stay.

The most time consuming part of the program is probably the drawing of Dave, as he is a 2 x 2 character consisting of 12 superimposed characters, and requires the manipulation of 47 items of DATA each time he is drawn on screen

I doubt whether the programmers at Acornsoft will be quaking in their boots when they see Dauntless Dave, but

•
T

BRC/FLECT

150 PROCchars 160 PROCCharacters 170 PROCLILLe 180 PRCCorid 190 MOVE.00,.00:PRINT har # 200 TIME -0 210 REFEAT 220 FROCKend Feyboard 230 IF square%=0 THEN PROCeelect square 240 UNTIL TIME 5500 250 BOUNDO,1,50,50 260 NOW=TIME 270 REPEAT 280 UNTIL TIME-NOW>200 290 PROCend 100 END 112 + Ø 330 DEF PROCcharacters 140 RESTORE 490 :50 PROEdefane_character(46):man#=## 768 PROLdefine character (4):bow#=a# 378 ENDPROC ыð :70 400 DEF PROEdetine character(2%) 410 A\$4"" 428 FOR N%=8 [0 24 4 D READ char% 時時間 画書中画書をご用記書ものお品ピなり 450 NEXT 460 ENDERDE 4 7 (2) 460 490 DATA18,3,7,224,8,228,8,18,3,2,.12...14.8,18,1 1,126,8,7 0,8,8,10,18,1,3,2 3,8,18, ,6,125,8,19, 5,229,231,8,18,3,4,227,8,18,3,3,235 506 DATA18,3,5,236,8,18,3,7,237,239,8,18,3,5,238 510 5.0 5 0 DEF PROCEMARS 540 VDU 23,224,15,31,24,24,24,12,7,3 550 VDU 23,225,0,0,64,144,144,96,0,0 560 VDU 23,226,224,248,48,48,48,48,96,19,128 570 VDL 13.2.7,1,2,4,11,16,0,0,0 580 VDJ 23,228,0,0,8,4,1,0,0,0 5Y0 Y0U 23,229,0,1,0,1.0.0.3.14 600 VPU 23,230,0,0,0,128,0,0,0,0 610 900 23,231,0,0,0,0,0,0,128,224 6.0 YOU 23,232,0,0,7,5,6,3,0,0 e 0 VDU 23,233,7,62,63,14,15,7,0,0

- "4) IF man XX 908 THEN man X4=900 HAD IF INFEY(-105) AND FNcheck_pos(manX%) THEN m a remarks instructions 100 IF man 1% 100 THEN man 1%=100 960 IF IMMEY(-73) AND FNcheck pos(man1%) THEN ma - Lenar + O Lenar 1 9 0 IF man's 900 THEN man's 14900 And IF FLAGA=1 THEN PROCCheck conner:PROCprint in a / J LNDPROC 1 Dec 18.19 2.0 DEF FEDUpriot man 10 O NOVEOLOmanXX, oldmanYX:PRINImanX 10+0 the cause , man & FRIMINANS 10° C GEORGER AND C it is charty=mant. 10 9 ENDEROC 142013 1000 INC DEF FROCINIC .1 C DIM S0(16), corner(%14), corner(%(4), C%(4)) LINE S OARE HE -- 2 ちょうみえき うわがめ 1 43 counts D ille present2+8 ssid daars emant thidrans whe Ys 180 ENVELOPE1.2,127, 1, ..., 50,50,100,0, ..., ...,1. 1,00 . . . FOR NX#1 10 16 200 St. NY -0 1. 10 112 11 1...0 = # 1.7.2 1. 28 06210... 1.40 ENDERV 1. 30 + + + 65 1. 'Ø DEF ENchack_pos(man%) 1 NG [F man%/100-1NT(man%/100) AND man%/200<>INT! MANX/200) THEN-TRUE ELSE-FALSE 1290 1 300 1318 DEF PROCeelect_equare 1320 NOW-TIME 1000 REPEAT 1.140 MG=RND(15)+1 1 3 UNTIL SO (M21K M , Ad FHILAGIARE COORDS M O FAULTLE a 10 1.1.1 144 D LOF FH LAQ ARE 100 JE 50 A C HE ST AF DASH 191 w C I de la zi Tat 4. .- U READ conner#%tcorner#%(N%)=corner#%+100 ++* READ conner Y%:corner Y%(N%)=corner Y%+100

```
640 VDU 23,234,0,0,192,64,192,128,0 0
                                                          14 3 C% (N%)=8
                                                          A 44 D. NEXT
  550 VDU 23,235,192,248,248,224,224,141 0.0
                                                           H & FF with a square by
  640 VD023,236,192,224,240,252,252, 40,214, 94
             17.0.0.7.1. 0.0

    2 ENDERGE

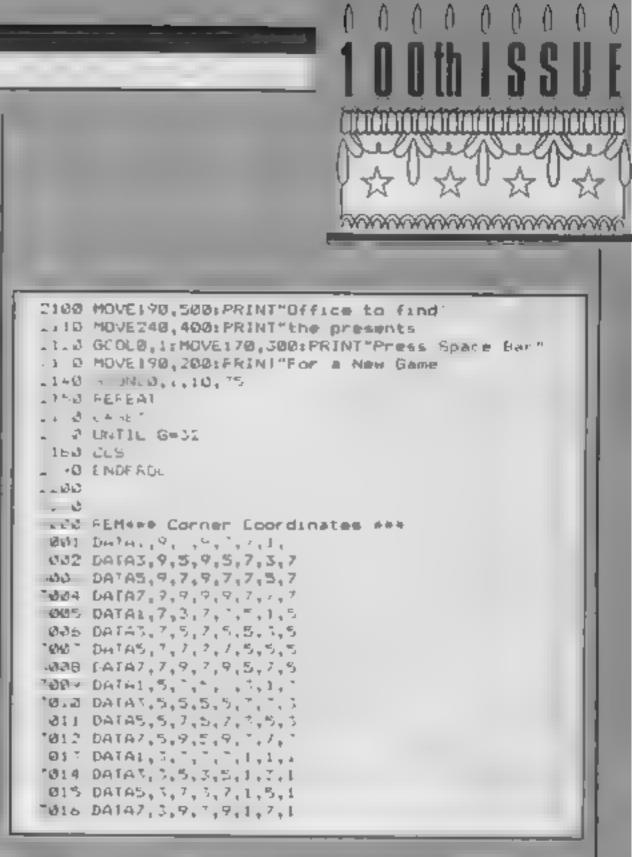
  E.A
                                                          Far to a
  and the second second from the
                                                           1.00
  1 20 N. - 9 0,0,17, 192.192,15.,0,0

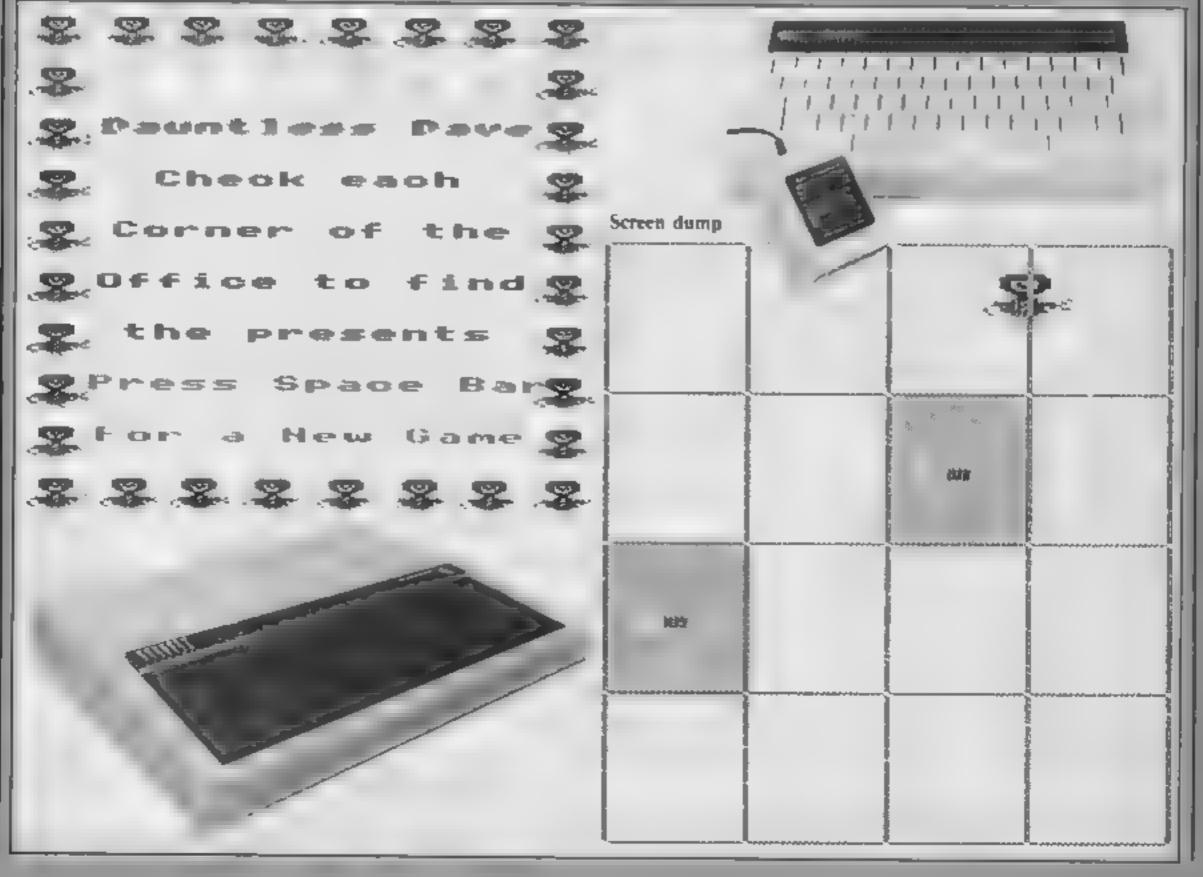
    3 DEF FROCfill square(col%)

  MOL NORM H
                                                           * 0 50 v. 1
  710
                                                           .1 8 MOVEconner XX(1)+68, conner YX(1)-45
  1021
                                                          ,5-0 MOVEconnerX%(2)+55,cornerY%(2)+43
  730 DEF FROGgrid
                                                          .510 PL0185.cornerX%(4)+68.cornerY%(4)-35
  740 GLOL3.6
                                                           * 0 PL0765, conner X3.13) +55, conner VX (3) -35.
  758 MOVE 160.60
                                                          .* Ø MOVEconverX%(2)+55.converY%(2)-43
  760 FOR NX=60 TO 860 STEP 200
                                                          1" +0 DRAWconner1% 41+68.conner1%(4)-35
  770 MOVELS0,N%
                                                           *-2 IF col%x 8 THEN MOVEconnerX%(1)+105,connerY%
  188 DRHW960, N2
                                                          11 LO FRIME -F
  7 PU NEXT
                                                          1600 IF colles THEN square%=1 ELSE square%=8:coun
  500 MOVE 160,60
  810 FOR N%=160 TO 960 STEP 100
                                                         P.M NOVEN', 60
                                                          1010 ENDEROC
  8.70 DE AWNR, SK 0
                                                          16.0
                                                          10.41
  用4团 AF KT
                                                          1640 DEF PROCcheck_conner
  ESD & DERTE
                                                          1650 FOR 1%#1 10 4
  d512
                                                          1060 IF MARKA=CORBERIX(1%) AND MARYX=CORDER1%(1%)
  370
                                                          AND C%(1%)=0 THEN count%=count%+1:C%(1%)=1
  bod wif FF Ilread levboard
                                                          1 10 16 11
  SHE FLAGSER
                                                          a court =4 AND TIME-NOWS1100 THEN TIME=TIME
 400 IF INFEY(-98) AND FNcheck_postmanY%; INEN ma
                                                         -750.SOUND1,1,100,2
 #X=mania 15 Fragh=1
                                                          1698 IF count%=4 THEN PROCf:[1_square(41):SD(M%)=
 910 JF man XX< 100 THEN man XX=100
                                                         , precentumpresent +...
 920 IF INKEY(-67) AND PNcheck_powimany%) THEN #
                                                          1700 ENDPROC
anXX2manYX+25:FLAGX=1
```

N PROGRAM

10 . Ż. 🗹 . 0 DEF PROChackground . 40 CLS 1 750 FOR NX=50 TO 1200 STEP 150 1'50 MOVENZ, 1000: PRINImans ヨノ ゆ NEXT 1740 FOR N%=900 TO 150 STEP -100 1790 NOVE50, NX: PRINTman#: MOVE 1100, NX: PRINTman# 1800 HEXT 110 FOR NX+50 TO 1200 STEP 150 .B. & MOVEN%, 100: FRINTmans 18 3 NEXT 1840 ENDPROC 1.350 1600 .6 0 DEF PROCend 1000 *FX15.0 1870 #FX9,10 - 400 +F x 10, 10 . YIN PROEbackground .7 0 GCOLU, I:NOVE220,000: PRINT"You Collected" . 10 GCOL8,11: NOVE 608,788: FRINI: present% . ++4 GCOL0, 1: MOVE 400, 600: PRINT"Presents 1 /50 GCOLD, 0: MOVE 170, 400: PRINT "Press Space Bar" 1950 MOVE190,300: PRINT*For a New Game" .970 REPEAT 1 780 G=68 T 1770 ONTIC G=31 -WWW MUH 20.0 ENDERGE .0.0 11.19 . 040 JEF PROCLILIE . PROChackground .VAD GCOL0,1:MOVE175,800:FRINT"Dauntless Dave" .0 0 GCOL0,2:HOVE205,805:PRINT"Dauntless Dave" .080 GCOL0,0:NOVE310,700:PRINT"Check each" .040 MOVE220,600:PRINT*Corner of the*





HOME COMPUTING WEEKLY 19 February 1985 Page 35



Slogger, 215 Beacon Rd. Chatham, Kent

house, collected lamp, matches. food, flask, note, key, fragment of wand and had the game-quest explained in the cellar, opened the front door, walked through the deserted village to the drawn, movement and accep-Parkland Crossroad and nothing.

I couldn't go NE to the audie ive Woodland Barrier, 1 tried NW and ended up in the maze, dead I then rol OADed to restart this BASIC adventure to recover the priceless jewel and the fragments of amashed magic wand. You haunted castles, forests and deserts in the 120 locations and

answer puzzles and problems using a vocabulary of 700 words

Accompanying the cassette are fourteen A4 pages of instructions that are the fullest and easiest to understand that I have ever seen A simple tutorial explains communication and Play Test I slogged my way through the explains moves to follow to complete the task. Each of the eight areas is described in full with clues to answer problems set, and in map form

> The colourful scenes are well tance of instructions is speedy and the adventure is quite F W.

> > 81 00

70%

65%

6044

MESTER CHORS. playability graph s sit to for the nes-



Harlequin, 111 Shakespeare St. North Kelvinside, Glasgow G20 藏論

I had great difficulty in loading this program due to the mordinate amount of tape flutter. I hope this defect is confined to the review copy

The object is to escape from the castle of the evil Prince Mayvar, You, Jester, must guide yourself from left to right across each screep, avoiding painters is hazards. These include rocks to we by the proce arows fired by the guards, and the guards themselves. There are gaps in the battlements to be crossed by hitching a lift on a bailoon

Your score is shown on screen,

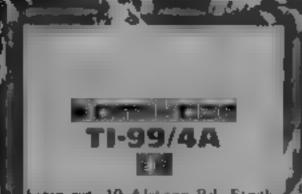
and there is a bonus value which reduces as the game proceeds As this bonus is added or completion of a screen, the faster you reach the end of the screen. the higher your bonus

Documentation is adequate, and the casselve inlay contains some loading instructions. Some screen text is multi-coloured due. to poor colour control, and although you have four lives, there are in effect only three.

This is probably best suited to the younger player as it lacks the sophistication which older players demand

This needs Extended BASIC PB and joysneks.

749.5
80.20
61.20



Stamess, 10 Alstone Rd, Stock (port, Chesture

Watch out — the aliens are on the attuck again, and these are, the worst kind - kamikaze haltens. They descend from the skies in UFOs, to crash into your city, unless you have the skill and , reflexes to stop them.

The screen shows a profile of 1 your city, plus the current score, r h gh score and status. The aliens come down from the top, the n in her, formation and speed of - uch depends on which screen you are playing and the skill level employed Using your Joystick you must position the sights of

Here's an assortment for you to browse through. The experts have assessed them all

Mix cinci

HECE E 141 1DS RUMAN HARS IN SVI-For Rd Collins In the BSE SNEE

Titon

f ian is a multiply monitor the muchine code programmer, and a offers full monitor and debugging facilities

The unity works by setting up wandows' which correspond to addresses in memory, and also displaying the contents of the registers at each point. There are 1 variety of commands enabling the user to alter the 'field' Pointer' to the various windows to move and alter memory blocks, and to alter or read individual locations

farme are a fime a contract o calculate combinations of

your layer on the aften crait. A gatek fisck of the fire button or J he will be blasted from the air. but if you miss he will crash into your city. The game ends when ten of the aliens have penetroted your defences.

invaders from outer space is hardly the most original theme. 1.25 but if you still have the appendie for this then you'll find it fun Personally speaking, I'm rather luted of zapping and zapping in this hostile manner. Sucely there must be something more peaceful and serene to do? This needs. Latended BASIC and a joystick J W

instructions. playability. prophes. value for money.



Quicksilva, Palmerston Park Hie, 13 Palmerston Rd, South ampton SOL 111

interactive film — a grand name for a graphic adventure game You guide Norman the wateror through subterrapean caverns to find the Ba stone

more data to be provided than is disc drive possible with a casseite game, but the drawback is the lengthy delays while the notoriously slow instructions disc drive chanters away. Every time you die the first stage of the graphics same has to be reloaded

You wander along passages and through rooms, probing wasts at regular intervals to

to avoid the guards, spider-like monsters and other hazards Movement 15 controlled by jovstick, but you can use the function keys to select four different modes, shield mode where arrows don't inflict learn. arrow mode - to despatch This is described as a real time armaments, fight mode, and take mode — for picking up objects h's quite challenging and should take a while to complete. but doesn't live up to the extravagant claims on the The use of a disk allows much packaging. This game needs a 17, 2

discover secret rooms, and trying

playability value for money M N

708

NL CD

1600 -580

ocation values, and a complete hexadecimal and ASCII dump facility. Most of the facilities seem standard but several have interesting functions. The,; mach ne-code relocation routine siters code to run at the new theat ess, and a single-stepping graphics mode is provided. which is invaluable. A so in they package is a complete intelligent disassembler which can distingaish between data and code This has bad points, but it

does offer a cange of useful functions, Anvone needing a atility of this kind will be artikely to do better D A.

PSTRUCTIONS	3910.23
case of use	640
display	550.0
value for money	- < 0

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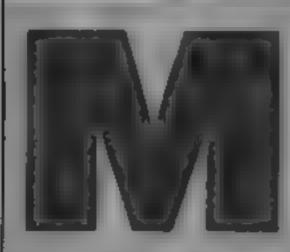
8000

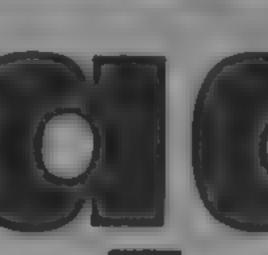
861⁴ a.

7.19-

Ballin

ZX81 PROGRAM





1200-1220 routine for south

1400-1440 routine for farmyard

1600-1650 routine for meadow

1800-1850 routine for wood

2000-2050 routine for river-

2500-2540 routine for finding

2600-2630 routine for use of

2700-2730 routine for firing shot

3000-3070 routine for player

3300-3340 routine to tell player

5010-5045 routine for player

6000-6030 routine for reaching

7000-7120 routine for instruc-

Dons on meeting animal

9100-0150 ask player's name

when no vaccine or builets

routine to show

road selection

bank selection.

bomis equipment

selection

selection

selection

vaccine

running

position

becoming rabid

8000-8060 play again?

4000-4090

Paris

Mad dogs are among the rabid animals on the rampage in France. Can you survive the journey to Paris in Nicholas Rust's original game?

This game is based on a novel idea. You, find yourself in Toulouse, in the south of France, and you must journey north to reach Paris. You have one very big problem many of be animals that you meet in the countryside are infected with the k ler cisease, rables.

You have no way of knowing which an mals are dangerous so you must decide when you can take risks. At the start of the game you have two sace nes which east for only one encounter with an animal so they are really only to be used in dire emerger cies.

To reach Paris you must travel 20 roads north, so if you have to travel seach this way make the trip longer and more

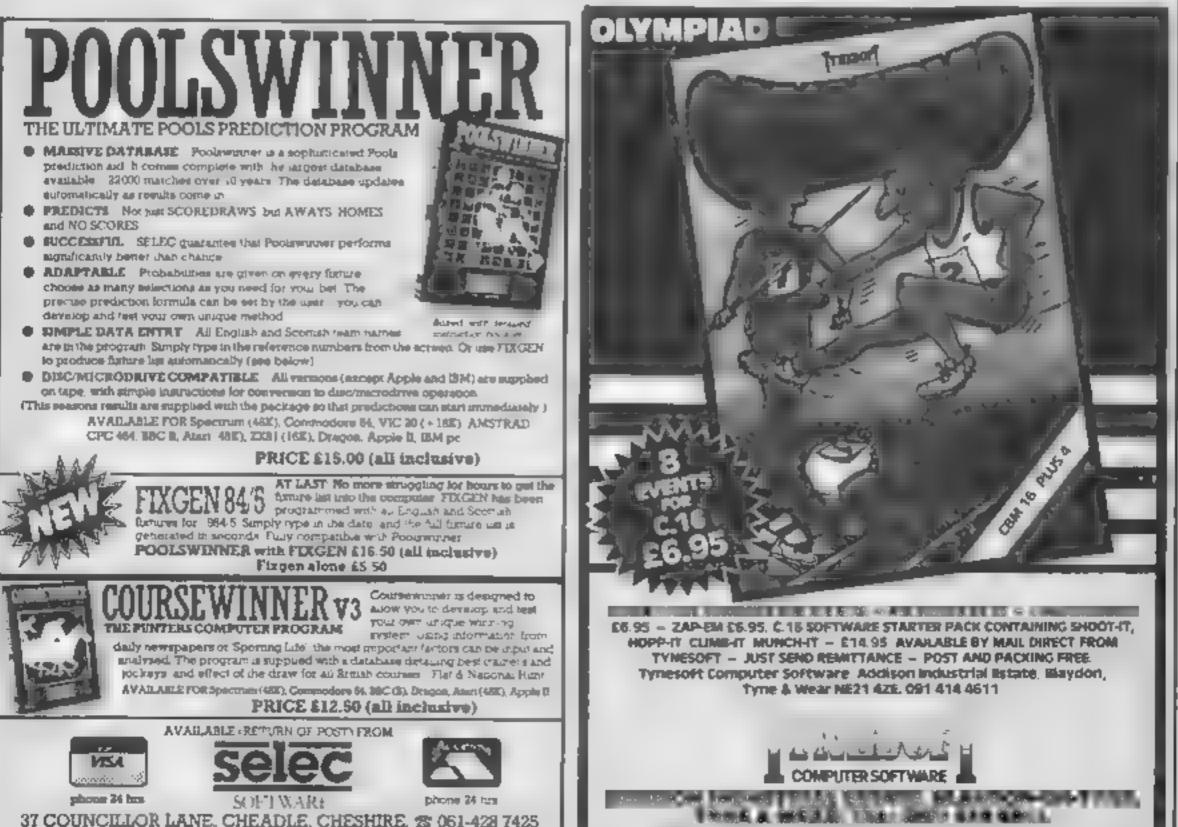
Negosossi i a unit de la contractive Segosossi i a unit de la contractive se la contrac
A RECARD AT 1 SHO HE HAND HE H

QIGHT编编作 TISKY 9200-9250 Variables S FOR STATUS! When you meet an an mayou have three options. You 3 IF INKENS="" THEN GOTO 200 can run - but most of the **Variables** 0.0 EET 1\$4INKEY\$ 30 IF ZAT'L THEN GOTO ((F-1) + an mass are faster than you. L roads progressed from start N FOR-NEXT loops *) +1000 You can vacchate yourself. 2 1F 19 F AS dimensioned string contain-THEN GOTO ((G-1) * but this only lasts for one + CO1 + 1000 ing destinations encounter. You can kill the - 10 IF Z\$ _' P" THEN GOTO ((H-1) + BS dimensioned string containanimal by slooting it in your 201-1000 ing bonus instructions 330 IF ZS 'S' THEN GOTO 4000 miss you wit have to make C\$ dimensioned string contain-2-2 6070 290 7 2 IF 1-20 THEN GOTO 6000 700 6070 210 200 FEM ROAD NORTH vourse f scarce pretty quickly? ing names of animals BULL number of builds left How it works VACC number of vaccines left 10-200 set up arrays OS player's name 7 2 LET L=L+1 COTO 350 210-340 set up screen display SS string containing 32 spaces 122 1000-1020 routine for north road F.G.H.R.T.Y.YY.LL random TA PEH ROBO SOUTH selection numbers PRO LET LELAI 1220 GOTO 350 -10 PRINT AT 7,0,55 100 PRINT AT 7,0, "YOU ARE IN TH OWREP REPARE FRENCE TO N. RUST 10.00 9000 2 FREM ARD," LET RERND 0 - - -戶事(6,10) 130 IF RK.8 THEN GOSUB 7000 135 IF REE.8 THEN PRINT AT 8,0; 1 IM E= (6, 10) ĩ TET AS:43 =" HEADOW" INS ABANDONED,";D\$ 17 IF RND>.7 THEN GOSUB 2500 18 FOR N=1 TO 25 US9 NEXT N

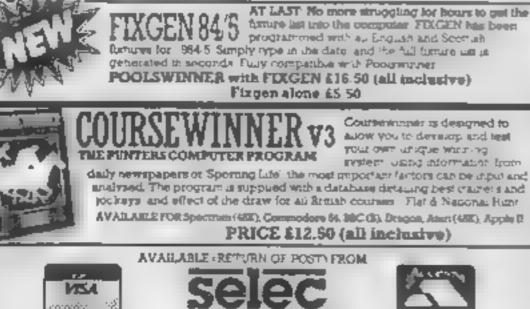
	2X81
. 10 SOTO 350 . 10 SOTO 350 . 10 ATM MERDOW. . 2 PRINT AT 7,0,5\$,AT 7,0; "YOU F ON A MERDOW." . 4 LEI & SMU HE30 IF R14.4 THEN GOSUB 7000 340 IF R14.	*740 GOTO 7128 300 REM BU 301 FOR N=10 TO 15 302 PRINT AT N.0;5\$ 3003 NEXT N 010 LET Y=RMD 015 PRINT AT 10.0;5\$ 3020 IF Y: 5 THEN PRINT AT 10.0; 1 DEAR, ";D\$;", THE ";C\$(ZZ);AT 1.0;"CAUGHT AND BIT YOU AR NOU RRBID." 330 IF Y: 5 THEN GOTO 5000 340 IF Y: 5 THEN GOTO 5000 940 IF Y: 5 THEN G
10 PRINT AT 7,0.33,AT 7,0; "YOU REE IN A WOOD. 820 LET FFAND 330 IF R(4.3 THEN GOSUB 7000 340 IF R).3 THEN PRINT AT 6,0;" HERE ARE NO ANIMALS HERE,";TAB ,D: 345 IF RND>,7 THEN GOSUB 2500 347 FOR N=1 TO 25 48 NEXT N *50 GOTO 350 200 REH ETUHERENNE 120 PRINT AT 7,0;SS;HT 7,0;"YOU ARE ON A RIVERBANK." 520 LET RFRND 147 IF R(.5 THEN GOSUB 7000 .0 IF R) .5 THEN FRINT AT 3,0, hERE ARE NO ANIMALS HERE,";TAG .05 248 NEXT N 500 GOTO 350 700 REH ERND>.7 THEN GOSUB 2500 347 FOR N=1 TO 25 .348 NEXT N 500 GOTO 350 700 REH ERND>.7 THEN GOSUB 2500 347 FOR N=1 TO 25 .348 NEXT N 500 GOTO 350 700 REH ERND>.7 THEN GOSUB 2500 347 FOR N=1 TO 25 .348 NEXT N 500 GOTO 350 700 REH ERND>.7 THEN GOSUB 2500 347 FOR N=1 TO 25 .348 NEXT N 500 GOTO 350 700 REH ERND>.7 THEN GOSUB 2500 347 FOR N=1 TO 25 .348 NEXT N 500 GOTO 350 700 REH ERND>.7 THEN GOSUB 2500 347 FOR N=1 TO 25 .348 NEXT N 500 GOTO 350 700 REH ERND>.7 THEN GOSUB 2500 347 FOR N=1 TO 25 .348 NEXT N 500 GOTO 350 700 REH ERND>.7 THEN GOSUB 2500 347 FOR N=1 TO 25 .348 NEXT N 500 GOTO 350 700 REH ERND>.7 THEN GOSUB 2500 347 FOR N=1 TO 25 .348 NEXT N .050 GOTO 350 700 REH ERND>.7 THEN GOSUB 2500 .347 FOR N=1 TO 25 .348 NEXT N .050 GOTO 350 700 REH ERND>.7 THEN GOSUB 2500 .347 FOR N=1 TO 25 .348 NEXT N .050 GOTO 350 700 REH ERND>.7 THEN GOSUB 2500 .347 FOR N=1 TO 25 .348 NEXT N .050 GOTO 350 700 REH ERND>.7 THEN GOSUB 2500 .347 FOR N=1 TO 25 .348 NEXT N .050 GOTO 350 700 REH ERND>.7 THEN GOSUB 2500 .347 FOR N=1 TO 25 .348 NEXT N .050 GOTO 350 700 REH EN FROM FROM FROM FROM FROM FROM FROM FROM	2); AT 11, 0; "CAUGAT AND BIT YOU BUT IT WAS NOT RABID." '350 IF Y)=.S AND Y(.7 THEN RETU N 360 PRINT AT 10,0; "ITS OK, ", D1; THE ";CS(ZZ); AT 11,0; "DID NOT OME AFTER YOU." 370 GOTO 7100 '300 REH WARKS LEFT '320 FOR N=1 TO 25 3330 NEXT N '340 GOTO 7040 '340 PRINT AT 7,0,35 '010 PRINT AT 7,0,75 '000 PRINT AT 7,0,75 '000 PRINT AT 7,000 PRINT AT 7,000 PRINT AT 10,75 '000 PRINT AT 10,75 '000 PRINT AT 16,75 '000 PRINT AT 16,75
<pre>* 0 IF B\$(T,3) ="B" THEN LET BUL LL_+(HL B\$(T,1) *0 IF B\$(T,3) ="U" THEN LET UAL A C+UAL B\$(T,1) *0 FETUEN *0 F</pre>	- 355 IF INKEY::" THEN GOTO 4055 - 060 FOR N=7 TO 16 - 1070 PRINT AT N.0;5: - 030 NEXT N - 30 GOTO 270 - 300 REM RELEE - 032 FOR N=1 TO 35 - 310 CLS - 320 PRINT AT 8.2; "THE ";C:(ZZ), 5 IT YOU, ";D:;TAB 2, "AND HAS MAD - 310 CLS - YOU RABID." - 5040 PRINT AT 12.2; "YOU SCORED ' (L:500) + (VACC::50) + (BULL::100);" - 01NFS." - 245 GOTO 8020 - 030 REM PRAIS - 301 CLS - 220 PRINT AT 8.0, CONGRATULATIO - 5,", D:,TAB 0, "YOU MADE THE LE - 15LLING TRIP TO THE SAFETY OF - 15LLING TRIP TO THE SAFETY OF - 15.", AT 14.0, "YOU SCORED ', (L - 500) + (VACC::50) + (BULL::100), " POI

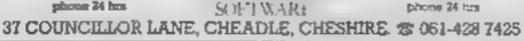
GRAM

{ 723 PRINT AT 1,0,1\$,AT 20,0,1\$ 324 LET Is=Is(2 TO \+Is(1) .25 IF INKEY\$="" THEN GOTO 602: 038 GOTO 8808 100 REM QUESTION -10 LET ZZ#INT (RND+6)+1 ~~~~~~~~~~~~~~~~~~~~ L20 PRINT AT 8,0; "HERE IS A ",0 * > 고고) 230 PRINT AT 10,0; "WHAT DEL A (J'N, SHOOT OR MACC)" 340 IF INKEYS -"" THEN GOTO 7040 LET ZS=INKEYS 2-2 PRINT AT 12,8, HI, .Ds <u>'Ø</u> DAG IF ZSA'R" THEN 6019 3000 TOP N 1 TO 30 C Z# "U" THEN GOTO 2600 IF 220 110 NEXT !! IF ZS "S" THEN GOTO 2700 730 142 ELS 1940 GGT0 7040 LEF USE AN ALL AND ARREND FROM 32 FOR N=1 TO 60 NEXT N 1.30 110 210 PRINT AT 0,0;U\$;AT 21,0,U\$ RETURN 120 2 15 PRINT AT 1,4)"(C) NICHOLAS DOD REM HOALD ST 1983 310 PRINT AT 21,2; "AGAIN, ', D\$, 20 PRINT AT 3,3;"THE OBJECT OF (Y ZN) " HIS GAME IS TOTRAVEL FROM TOLC I IN THE SOUTH OF FRANCE TO TH PRO IF INKEYS ="" THEN GOTO BORC JOO LET ZE-INKEYS SAFETY OF PARIS AVOIDING - R 0 IF INNEYS="Y" THEN RUN .D ANIMALS AS YOU GO. 050 IF INKEYS="N" THEN GOTO 999 -- 0 PRINT AT 9,3,"YOU NEED TR VO ALONG THENTYROADS NORTH TO R 350 GOTO 8020 A H PARIS. YOU START WITH 2 VAC LOW REH INSTRUCTIONS AND DERIGS INES AND 1 BULLET FOR YOUR - 43 " JOLVER.NOT ALLANIMALS ARE RABI . 01 CLS 1 2 2 LET 1 2 135 PRINT 35 PRINT , TAB 2;"DB VACCINATI 1-800 =2 CAG LET AND LET BULL =1 ENCLUNTER WITH ANANIMAL ONLY." 김 토 속 '' 242 LET 240 PRINT AT 19,2; "ANY KEY TO S HET / ",D\$ 4100 FRINT AT 10,0,"HELLO,WHAT"" 150 IF INKEY\$ ="" THEN GOTO 9250 YOUR NAME? (S MAX)" DA9 RETURN 101 INPUT OF TKO CLEAR TYS IF DE-OR LEN DEVE THEN G 191 SAVE "RABID FRANCE" 1 9101 -995 RUN











CSM, Suite 40, Strand House, Great West Road, Brentford Middx TW8 9EX

is a small mid-western American a variety of aliens swarm. task of stealing the stars from the town's Rag

Your job is to control a blue Battle tank driving round the grid shooting the aliens before ostructions your supply of stars runs out The flag itself is at the bottom, grapmes and each alten touching it value for money removes one star. Remaining stars at the end of each wave give a bonus, and there is an

additional bonus for shooting the five lettered droids in the correct sequence. Other nasties include Homers, which follow you round, Scythes and Packers, Tanks which shoot back and Ziggies which can only be shot broadside on

Control of the tank is The setting for this colourful keyboard only, but the controls Mode 2 areade game by Visions are fairly smooth and responsive The graphics are faultless and town, in reality a grid of fast, but the tank's manouvrecoloured squares through which ability is limited and a reverse button would be useful. Neverattempting the rather improbable theless Apple Pie is a fairly original and playable game, and f recommend it unreservedly

D.A.

7010 .

8.12 .

2540

694.

playability

-cipionoge BBC £8.95

Modular Resources Centre, 12 Ledger La, Lofthouse, Wakeheld WF3 3NG

program is different! Written ing of the cassette is a pain, you entirely in BASIC the aim is to need to do this after each part of find the spy that has moled his the game, in order to go on to the way into the management of MR next part Oil.

detective, but you have a coverrole in the business which you must maintain by not making too many mistakes in your work each das.

By keeping your with about you as you read the memos that require replies, you should find a certain person requesting information that is not strictly in his area of responsibility

This is your mole and as soon as you are sure you report to the directors and the company is secure again

There are seven different roles for you to take and you learn a great deal about oil as you play Now I have to admit that this this game. The constant reward-

Interesting but not as enthral You enter the company as a ling as I had expected, overpriced 100 DC

Instructions		75%
playability		70%
graphics	+	559%
value for money		60%



BBC, 35 Marylebone High St. London W1M 4AA

All aboard! It's time to get up stea n, put your Casey Jones has on, and head out into the wild west as the driver of the cannonball express.

You are given the choice of two games, the first involves. making a voyage of discovery through the fifty screens of railway track, collecting gold, wording outlaws, and dodging the runnway trains. The controls are simple. forward, reverse, and hange the points. By carefully controlling your speed you can mek up trucks. A variety of items can be found in these; cattle, bridge parts, or, best of all, gold

BBC bonanza

Five games for your beeb, read our reviews before you buy

DOCTOR WING ond the ANOTHORS. 2 X M 6 10 C

slit 35 Marylebone High St., London WIM 4AA

It was with apprehension that | examined this latest offering-in the Doctor Who suga, I remember the first Doctor What adventures in which second rate arcade games were packaged and sold as an adventure. This new 💯 program is a real adventure, and a sizeable one. It occupies both sides of the cassette, each half of the game being the same length: as The Hobbit

At the start you and the Doctor attempt to help King, varanget, however, you become separated from the Doctor and must carry on alone. From here on the story tends to become a little gory. Within the first 10 minutes I had died a thousand terrible deaths. Once I had both my arms and legs broken and was left to die I think I would have preferred it if the BBC had stuck to good clean zapping and, blasting A comprehensive vocabulary can be employed. Sentences such as 'Give the scroll to the Doctor' are allowed. It is this flexibility of language combined with a complex plot that are the strengths of the adventure. J.R.

Points are awarded for delivering these gold trucks to the bank. animing you can find the bank !

In the second type of game you are at the helph of a runaway train tearing through the wild west at full speed. Unfortunately s chis version of the game soon Abecame a little tedious as all you controlled was the points lever

Overall 1 enjoyed the program, Il was an opportunity to play a nice sedule game for a change, with not a faser in sight. JC.

instructions. PLAN PELS grapt s value for money



Pantry Antics BBC £6.95

To realise that it's computer is avoid being used for the playing of arcade games.

they've got it right yet. This is a boring and even shapeless mediocre game that wouldn't producers at all

The aim is to cause havoe in in the game the pantry and you play a rather small pink mouse. The paniry astructions comprises a number of blue playability shelves that occasionally have graphics gaps that you can jump or fall value for money through

This house has creatures that try to stop the mouse in his destructive behaviour. This involves birds, then frogs, caus and bats. All have their own

patterns of behaviour that make If has taken the BBC a long time them particularly difficult to

The graphical animals are very good but the various bits of This is the BBC's first truly crockery that fall off the shelves areade release and I don't thin), can only be described as rather

What cannot be avoided is the have been published by the big complete boredom you tend to feel, caused by the lack of variety D.C.

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601P n.

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Instructions playability graphics value for money

6119% 70% N/A 90%

Page 40 HOME COMPUTING WEEKLY 19 February 1985

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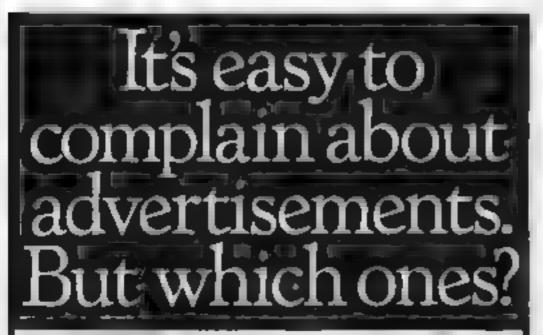
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QUENDATA

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SPECTRU

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We welcome programs, articles and tips from our readers. If you feel that your work meets our standards, please submit it to us for consideration for publication.

Programs must always be sent on cassette. Listings are helpful, but not necessary. Check carefully that they are bug-free. include details of what your program does, how it works, variables you have used and hints on conversion.

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 Tips are short articles, and brief programming routines. Your hints can aid other computer users.

All submissions will be acknowledged and the copyright in such works which will pass to Argus Specialist Publications Ltd will be paid for at competitive rates. Keep a copy of your work and include an SAE. Label everything clearly and give a daytime and home phone number if you can. All work for consideration should be sent to:

Paul Liptrot, Home Computing Weekly, No.1 Golden Square, London W1R 3AB

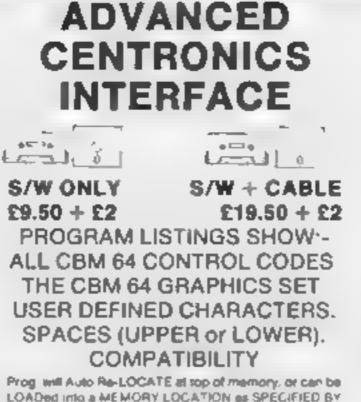




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Page 42 HOME COMPUTING WEEKLY 19 February 1985

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Weste of

time

With regards to Day d Comkinson's letter (HCW 88), La so sent for the Lexastape and to become a member of the club. I will ed about two months. and eot led up.

I got the owner's phate number and rang hun. I than waited another two months and phoned again-The man told me lie had sent if to me. After my thirdphone call I finally got the tape, but it wouldn't load. 1 phoned the owner aga r and he told me to send him. one of my tapes which he would return to me

I sept hum all ne huhaven't had the tape back. I have been wening about three months now.

I tlunk this club is a waste of time. This is at the same address, 41 Winchester St. London. I wish some hing. would be done about his

F Harvey, Nuncaton

roxes moen

Turstly 1 would like to constatente von on producing a bist cassmagazing Every bit se worth reading. I have been an HCW reade ever since the first issue was produced when I first had my 11.99.4A and Lam clad. to see it improving every 1551.0

However, to get to the plain reason for me writing th vletter, we Texas owners, have been deprived of the hmelight our computer. deserves especially after

Imagine buying one of these carindge games which retail in the region of £16 to £30 each texpensive aren't they, you Spectrum owners!) onty to find the same's a Rep. 100

Lalso think it would be a good idea to have more peripheral reviews for the Texas. This computer is way ahead of the Spectrum. in technology. There are many perspherals available for the Texas which the Spectrum and other comparer would like to getheir over-run RAMs and ROMs on This is one thing. we can boast about, so take to e you downhear ed-Texas owners, I haven't seen one review of the MB Voice Recognition system In this magazine yet.

Finally, when there have heen Spectrum users' conventions | have seen big | glossy centre spreads about it in HCW. There was a TI-99-4A computer exhibition in November which was acvertised in HUW but what happened there? I haven't even seen it mentioned since then.

Darren Purdy, Langley Mill

they is an old but still thorny problem But the fact is that there are more Spectrum users than any thin, else. Ble can't piease all the people all the time. but we do try our best, and we support the FLas hills as 112 6 677



reading your magazine 1

How many home computers do you know which can sing or read out their own Is mes? With the Music Maker module the TI can pury anything from the **Beatles to Beethoven.**

Together with Alar Frew, one of our local TI wizards, I formed the Maltby TI users club. Although I bave had somedetails published on your Letters page. I feel your readers might like to know that there have been a fewchanges in the past course. of months. The club now produces a monthly newsletter, offers a 10 per cent discount of modules and hardware and up to 20 percent off casselle software from most leading TI desi ervi

Subscription for 12 mondis is spell and two groups: £10 for users who live close enough to attend our regular monthly meetings, 66 for postal members. Wy meet on the second Laesday of every month many publishash room. The meetings are justfor T1 users and usually there are five or say compaters se up Opr meet has give overs the coporturate to see what her computer is capable 131

for to her det its please. which the oscial ad SAL of the Johowitty adoress.

Mark Lee, Maliby TLusers, club, 89 Rotherham Rd. Malthy, S Yorks 566 81 Z



What isn't clear is the ' unexplatned list of eight columns showing various micros if this is the popularity chart 1 find it cannot be believed as it doesn't correspond with Gallup's own published charts.

The conclusions must be the availability of each of the top 20 on other incrosbut if this is so, the chartalso can't be believed as both Blue Max and Beach-Head are available for the Atari vet these aren't shown.

1 suspect that once again the market researchers are omitting details which caves the reader with the option of interpreting the facts any way he or she w shes Please explain

Michael Ayland, Gloucester

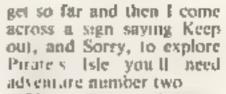
We're confused about your letter. Where else do you see the Guthup chart and deduce ours is wrong? We take a regular weekty chart which comes to us direct from Gallup and Isn't altered in any way.

Incutentally, only Blue Max is available on the Atart according to US Gold Beach Head isn't As far as we can be humanly certain, the chart is credible and accurate 115 not devised from distributors' figures, but from high street sales. We belerve it's the most trustworthy chart.

Machine

code

needed



This game is adventure number 14 and all the people E know who own a TI haven't got adventure 1wa.

Anyone who has got adventate number two, please write to the before I go mad!

Kuthleen Gaffney, 51 Gotham Rd. Yardley, Birmingham B26 11 B

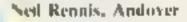
Live on Datey

Lan a very proud Spec run owner and Lam boring you. with this lefter about a blig on Datey Thompson's Decaution which gives you infinite lives

To do this you must get 168.96 merres on the discus-This is done by let use the discus go, on the just famiat 36 decrees when the main is facing directly outof the net.

If the speed is in he second black the asens. should no bargh the seleca twice and land in the Lowd

You lives will then podown which ally, but when vial final scale calles lip, instead of going to the start of the vame it will go back to whe e you left o.1.



the communion of that attic
plast's piece of junk called a
Spectrum. This is where the
first of my criticisms comes-
10
1

la one type of HCW Litere were three considerably lengthy programs. proted for the en-esment. of Spectrum owners, but not one for the 11.99 4A. pot even a software review. So I had spent 45 pence on a magazine that wasn't much good for me, except for the ood usual idvertisement?

I would like to see more Extended BASIC programs in your magazine - which don't require joysticks as we don't all have this small. novelty - and more software reviews for the Texas-Why not try reviewing the many new cartridges released by Texas Instruments and Atan, such as Buck Rogers, MASH and Jawbreakers, which all have breathtaking titles, but are the games just as good?

have read quite a lot of letters from your readers Some with delighted interes some unfortanation with d soust. I can t undersaind the many IF users. who write in and complainabout they complicer 1 have had ray 11.99 4A for more than two years and 1 have never wanted to compare if with a BBC cr. any other machine for that matter. When the time comes that I have to complying a will be time to get another computer. | bet the users who wrate in haven't seen. the full capabilities of their downeried Til. I agree that when using the TI console

ware which obviously these users haven't got, the TI-99.4A is a very good computer.

on its own, it eaves much

to be desired, but with the

right hardware and soft

The TI speech synthesiser is the best I have ever heard.



I'm writing to find out if anyone has thrashed the computer on Match Day for the 48K Spectrum The lowest the computer has wored against me is 2.1 and 1-0.4 was reasong 1-0 in the first half but the computer scored two last 15-minute. goals and in the other match the computer scored a last five-minute goal

I think Match Day is great You can see the players run on to the field So, how have other readers done?

Andrew Muserove, Ipswich



Your proudly published Gallup software chart of December 31 is, we are told, 'the one to believe m'.

I get your magazine every week and I think it's great. I ewn a 11.99 4A and 1 m glad you're continuing 10 print programs for it. which, on the whole, work we 1 and are great full Can anyone (ell me where to find a book or machine. code or assembler for the Ti? I can't find one anywhere George MacRae, Blairgownie-Stuck on (



Lam nearly going mad 1 own a TI 99 4A and I was given a game at Christmas, Return to Pirate's Isle. The cover price was \$20, which works out at nearly £20 When I play the game I

Send your letters to Letters, Nome **Computing Weekly**, No 1GoldenSquare, London WIR JAB Don't Forget to nome your computer — the best letter could win ES-worth of software Got a problem with your micro7 Well soon be starting a queries page so send your technic al questions to Overies at the obove address

BMX Number Jump C64

Hse, Burnt M II, Harlow, Essex division CM20 2JE

aimed at giving the six- to ten- that I didn't have the instantanyear-old age groups experience cous control of the bike I would with the basic number skills, to have liked. Consequently the altract the attention of this age game gave a high failure rate group Longman have used the not desirable in an educational current fad of BMX as their focal point. The child chooses a difficulty level and the game sluggish controls, may result in commences.

He must ride his bike around a maze-like course avoiding mutant kangaroos which want t push him off. At the aide of th screen is a sum whose answer displayed on one of the gates i the maze. The bike rider has to be manouevred over the correct answer gate at which point the

kangaroo disappears, a new sum and kangaroo appear and the game continues. The skills tested in this program are addition, Longman Software, Longman subtraction, multiplication and

The ideas behind this game are sound and in terms of screen This is an educational program presentation it is good. I found game. Failure, not because of a wrong answer, but by reason of the game being left on the shelf. M. W.

κ.		
0	Instructions	- 9
Ċ.	ease of use	5
5	graphics	6
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Magazine Bibliography BEC B E10 per part

McHugh Enterprises, 43 Hookstone Oval, Harrogate, N Yorks HG2 8QF

If you are a serious computer user you are likely to read a large number of magazines. Problems arise when you need a particular article but can't remember which magazine and which issue it was in! This product is an attempt to keep you up to date with the happenings in all magazines containing references to the **BBC**.

The bibliography was started in December 1981 and has been kept up to date. Each program has about a thousand references and can be searched in minutes. If you have more than one part

on a disc, it will load that section and carry on the search

What disappointed me was that the programs don't use random access, each reference is contained in a DATA statement and it is these that are searched

Having said that the programs are very useful and can save hours of work. The two string search facility is good and this enables you to find only graphic articles in one magazine which can make life much more simple. D.C.

Instructions	90%
case of use	75%
graphics	N/A
value for money	70%

Bridge Player Amscrad **CPC464** £9.95

CP Software, 2 Hawthorne Rd, Leeds 1.57 414

The future of computensed card games is assured high to ings, if the excellent standard set by this one is maintained

The sules are not included nor need they be. A huge literature, devoted to the method and skills of Bridge, fills the shelves of your library or bookshop,

The game is incorporated within three main screens, using well chosen colours and graphics that are adequate even on a Green Screen Monitor

The bidding screen, the purpose of which is to establish the trump suit, accepts both Cierber and Stayman conven-110135 The playing screen depicts the four hands in play, with the north/south partnership's cards revealed. Around the perimeter are an indicator to show the lead hand and trump suit bid, a count of the tricks won and a pointer to the winning card which determines the next lead. A boon to the less experienced player is the scoring screen. This computes the scoring system for each hand

Get those cogs whirring!

045

0%

596

Programs to make you think, assessed by our team of experts

Pitman **Typing Tutor** Amistro1 CPC464 29.93

Amsoft, 169 Kings Rd, Brentwood, Essex

This educational program staris with several explicit pages of instructions.

Clearly and concisely explained is the method adopted to improve the speed and accuracy of your typing skills.

As a forerunner to the main program, these herald an expectly designed series of practical keyboard exercises.

Each lesson requires you to copy-type a series of letters which are seen Bushing on an imitation keyboard display on the screen.

The second part of each lesson

Control is through the keyboard, simply explained on the cassette inlay, along with details of the bidding. D.H.

instructions	100%
playab hty	100%
graphics	100#0
value for money	80%





Oreen, Tadley, Hants

utility for the C64. It comes in a the registers and change them smart package with the statement directly. 'a full user manual is included ... ' The six page manual only gives a user to write machine code brief description of each programs in a limited way and command. The manual won't has a good set of disc maintenteach you how to program in the lance commands. 6510 machine code, a prior knowledge is required in order to instructions

use this utility. The utility is fairly easy to use display

providing a black background value for money with white lettering. However I feit the extra commands required to edit the machine code, add an unnecessary complication to the process of changing instructions The use of the transfer command is incomplete without

a relocation command, but it is possible to read, edit and write a Interceptor, Lindon Hse, The block to disc. This is useful when trying to recover data on the 1541 disc. Another useful Exmon 64 is a machine code function is the ability to call

> In all Exmon 64 will enable the M.T.

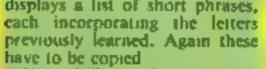
ease of use

75%

80%

80 %

70%



Your skills are then measured and a mark is given for both speed and accuracy. Also shown ss the suggested minimum slandard required, before moving on to the next more advanced lesson

The screen presentation is good, tastefully using a variety of inks and pens, to brighten and enhance what could easily have become a rather lifeless display. A thoroughly useful program that can only serve to achieve it's obsective.

Looking forward to more proof that learning can be fun, especially in the home environment. D.H.

instructions		100%
usability	1.4	100%
graphics		90%
value for money		75%

HOME COMPUTING WEEKLY CLASSIFIED

Lineage: 35p per word



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Few only (unboxed): new ZX printers £27.00, Microdrive cartridges £3.00 inclusive while stocks last. Computamart, 195 Seabourne Rd, Southbourne, Bournemouth. (Tel 0202 433759)

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BBC B/Electron/Dragon software library - Membership £5.00. -Tapes I (+30p P&P). Stamp for details, E. Tucker, (H) 58, Blenheim Walk, Corby, Northants,

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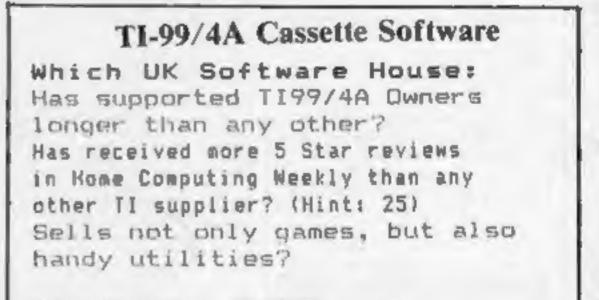


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